



# Economic and Land Use Impacts of Wisconsin State Trunk Highway 29

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## Executive Summary

The purpose of this study is to identify the economic benefits of a recently completed expressway in Wisconsin. In cooperation with the Federal Highway Administration and the Economic Development Research Group, the Wisconsin Department of Transportation (WisDOT) agreed to evaluate a recently completed four-lane corridor in north-central Wisconsin in order to determine the actual and potential economic benefits of the highway capacity improvements.

Wisconsin State Highway 29 is a 182-mile, four-lane highway, mostly expressway. Construction of this highway began in 1988 and will be completed in 2005, with sections opening incrementally as they are completed. This highway was chosen as a case study for several reasons. First, from a historical perspective, Highway 29 was an important transportation link connecting many of the state manufacturing and food processing facilities to trade centers in the Midwest. Highway 29 was also the subject of a 1989 economic impact study<sup>1</sup>, in which a baseline of business information was established and an economic forecasting methodology was developed to predict the economic benefits of a four-lane facility. Finally, Highway 29 links diverse areas such as rapidly growing regional centers and smaller agricultural communities. From Fiscal Year 1999 through Fiscal Year 2002, Wisconsin was awarded over \$26 million for the Highway 29 corridor from the National Corridor Planning and Development Program and from the Coordinated Border Infrastructure Program.

A recommended methodology for the economic impact study was outlined in a Federal Highway Administration research study, *Using Empirical Information to Measure the Economic Impact of Highway*

*Investments*. WisDOT followed this methodology along with additional analytical methods for evaluating economic impacts, including utilizing Geographic Information System (GIS) applications to identify and map businesses along the corridor.

To determine the impacts of the highway improvements, WisDOT's research team queried local officials and business leaders in communities along Highway 29. Land use or development plans were gathered for current and anticipated economic activity along the highway.<sup>2</sup> Rates of growth for population, per capita income, businesses, tourism expenditures, locations of new and expanding manufacturing plants, property values, and Average Daily Traffic (ADT) counts were also compared between the four-lane highway and a comparison two-lane highway (U.S. Highway 10).

Due to the length of Highway 29 and time constraints, the study was divided into two phases. The first phase included the 55-mile highway corridor between Chippewa Falls and Abbotsford. Phase II of the study extended the analysis area from Abbotsford to Green Bay, an additional 127 miles.

Highway 10, a two-lane corridor, parallel to Highway 29, was selected for comparison purposes. The Phase I analysis area along Highway 10 included the communities between Osseo and Marshfield, approximately 55 miles in length. During Phase II, an additional 104-mile, two-lane comparison corridor along Highway 10 included the communities between Marshfield and Appleton.



The following are findings from both phases of the study.

## **Community Economic Impacts**

- Local economic development and planning officials reported that mostly positive economic impacts were related to the four-lane improvement. These highway improvements provided faster travel times, better access to the expressway, and improved safety and driving conditions for both truckers and private vehicle operators.
- Communities along the four-lane highway have accelerated their planning efforts for commercial and industrial development, particularly near new interchanges. Maps of planned land-use were provided by communities and were included in the study, along with maps created by research staff from interviews with local officials. The maps illustrate the proactive local planning efforts taken to improve local economic development along the expanded four-lane corridor.
- Interviews with local property tax assessors provided anecdotal evidence of an increase in the values of properties sold near the expanded highway, particularly near interchanges. Further research showed that from 1998 to 2003, Highway 29 corridor cumulative equalized property values grew at a slightly higher rate (40%) than did the Highway 10 communities (38%). Property values in communities along both highways grew less than the statewide total (45%).
- According to economic modeling in the original 1989 study, the four-lane expansion of Highway 29 was predicted to provide a statewide disposable

personal income benefit of \$602 million over a 30-year period. The current study's estimate places that income benefit much higher, amounting to \$1.4 billion by the year 2020.

The original study also estimated that statewide business output would be nearly \$88 million greater in 2020 with the expansion compared to what it would be without the expansion. The current forecasting update estimates that business output will be \$412 million greater in 2020. In terms of employment, the original study estimated there would be 474 additional jobs statewide in 2020, as a result of the Highway 29 expansion. The current update estimates there will be 2,400 additional jobs in 2020.

- The highway improvement has reduced travel time and improved employment prospects for many job seekers residing in the communities along the expanded highway. Local officials indicated that many of the workers commute long distances to the large urban centers for the higher paying jobs and benefits. At the same time, wage earners are more likely to purchase products and services at these larger urban centers rather than locally, in the smaller communities.

## **Business Impacts**

- Manufacturers, food processors, and transportation service providers noted improvements in travel times and increased reliability of product delivery. Improvements in the safety of the new four-lane highway were the most

frequently mentioned economic benefit by interviewed businesses.

- Between 1995 and 2003, the number of businesses in the communities along the highway increased from 10,464 to 16,256, a 55% increase. Highway-oriented businesses such as gas stations, motels, restaurants, and convenience stores were the first wave of development for many of the communities along the improved four-lane highway.
- According to data from the Wisconsin Departments of Commerce and Workforce Development, improvements to Highway 29 have paid dividends to the communities along the corridor. During 1990-2001, 151 new and expanded manufacturing plants located within five miles of the four-lane highway, creating 6,269 jobs. This number of created jobs was higher than along the two-lane comparison highway (5,501).
- On a larger, *county* scale, from 1996 through 2001, new and expanding manufacturers in counties along the corridor created 4,871 jobs, more than twice the number of jobs created in the previous six years.
- The highway expansion has also caused shifts in traffic patterns, affecting downtown businesses. A reduction of trucks in the downtown area has increased the visibility and accessibility of businesses along Main Streets. On the other hand, the additional lanes, interchanges, and bypasses facilitated the shift of local shoppers from the smaller local communities to the larger urban centers.
- From 1996 through 2001, total employment along the Highway 29 corridor increased by 11.3%, exceeding the statewide growth of 8.7% during the same period.

### **Comparison of four-lane Highway 29 to two-lane Highway 10<sup>3</sup>**

- Between 1990 and 2000, population increased by 12% in communities along the two-lane highway corridor and 11% along the four-lane highway corridor. These growth rates were both slightly above the statewide average population growth of 9.6% during this time-period.
- The level of tourism expenditures in counties along the four-lane highway was slightly higher, but the rate at which expenditures increased was approximately the same along both corridors. Tourism spending on the four-lane highway increased by 103%, while expenditures along the two-lane highway increased by 98%.
- From 1990-2000, the average growth rate in per capita income in counties along the four-lane highway corridor was slightly higher (by 1%) than in counties along the two-lane highway. In addition, the average growth in per capita income in counties on both highway corridors was higher than the statewide average.
- During 1995-2003, the number of businesses grew substantially in communities along both highway

corridors. During this eight-year period, the number of businesses along Highway 29 increased from 10,464 to 16,256, or by 55%. Along the two-lane Highway 10, the number of businesses during the same period increased from 10,386 to 12,133, or by 17%.

- In absolute numbers, there were more incommuters along Highway 10 over the 1990-2000 period, however, the rate of growth of commuters into counties along Highway 29 was higher by 20 percentage points than the incommuting growth rate along Highway 10, suggesting the development of more economic opportunities in counties along the four-lane highway. In addition, the self-sufficiency levels of counties along both the two-lane and four-lane highway were similar. Two counties along each corridor showed relatively high self-sufficiency, with over 80% of their labor force working within the county.
- WisDOT data shows that between 1991 and 2000, Average Daily Traffic increased by 56% on Highway 29 compared to 52% along Highway 10. This increase may account for the higher

tourism expenditures along the improved four-lane highway.

- From 1998 to 2003, Highway 10 corridor cumulative equalized property values grew at a slightly lower rate (38%) than did the Highway 29 communities (40%), with both growing less than the statewide total (45%). This difference is more indicative of the economy of central Wisconsin in general than of the highway expansion.

The higher growth rates in counties along the four-lane highway may be attributed to several factors, such as the increased economic activity of regional trade centers along the highway and the general upturn in the state's economy during this period. The four-lane highway's nearing completion may also be a factor in the higher per capita income growth rate in counties along it.

Anticipation of the four-lane highway's completion may have also contributed to the large number of new and expanding manufacturing plants that located along this corridor.

## Introduction

### Highway 29: A Historical Perspective

Wisconsin State Highway 29, a once hilly, curvy two-lane highway in north central Wisconsin, is now a major east-west route. Highway 29 was commonly referred to as “Bloody 29”, as crash data revealed that on portions of this highway the fatality rate was almost twice as high as the average for two-lane Wisconsin highways. Many sections of the highway had poor sight distances, curves and hills, heavy truck volumes, and dangerous at-grade intersections.

Historically, Highway 29 served as an important transportation link for many of the manufacturers, food processors, and transportation service providers in communities along the corridor. The highway connects over 20 Wisconsin communities of varying sizes, including Green Bay, Wausau, Chippewa Falls, and Eau Claire to domestic and international markets in Canada and Mexico. The route intersects with Interstate Highway 94 and continues west to Minnesota, providing direct access to the Minneapolis-St. Paul Metropolitan Area, one of the largest trade centers in the Midwest. Highway 29 also serves as a major connector to many of the state’s tourism attractions and recreational centers.

Over the years, as the economies of the state and the communities along the corridor grew and diversified, the highway became increasingly dangerous, with heavy traffic flowing through smaller communities at all hours of the day. These safety hazards were not only claiming lives but also hindering

the ability of communities on the corridor to achieve their full economic and growth potential.

Shortly after his election as Wisconsin’s Governor in 1986, Tommy Thompson, now Secretary of the U.S. Department of Health and Human Services, made a commitment to convert Highway 29 between Green Bay and Chippewa Falls to a four-lane highway by the end of 2000.

Planning for the highway-capacity improvement took place shortly before construction began in late 1988. Portions of the highway were rebuilt to freeway standards with new interchanges, on and off-ramps, and at-grade intersections with acceleration and deceleration lanes for the rural stretches along the corridor. Several bypasses were also built, resulting in reduced downtown truck traffic and improved access to businesses in the Main Street communities. Figures 1 and 2 illustrate the Highway 10 and 29 study areas for communities along the Highway 29 corridor.

On August 16, 2000, Governor Thompson led a ceremony opening the 182-mile highway for traffic. The \$450 million, four-lane expressway conversion was completed on schedule after years of planning, design, and construction

Since the expansion, initial data indicates that despite the more than 75% rise in vehicle miles traveled on segments of the highway, the fatality rate has dropped by about half, resulting in saved lives and significantly safer driving conditions. This study will evaluate, from an economic development perspective, the benefits of the Highway 29 freeway conversion.

Due to the length of Highway 29, the study was divided into two phases. The first phase

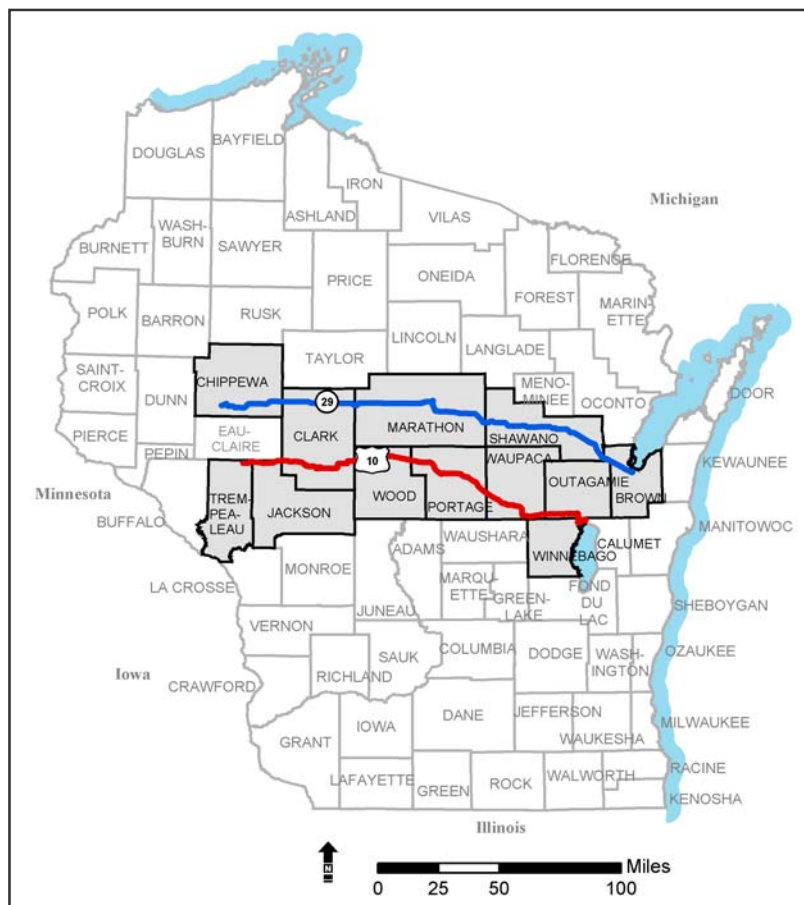
included the 55-mile highway corridor between Chippewa Falls and Abbotsford. A second phase of the study extended the analysis area from Abbotsford to Green Bay, an additional 127 miles.

The technical advisory committee convened for this study recommended that another, a mostly two-lane highway, parallel to Highway 29 serve as a basis for comparison. U.S. Highway 10 was chosen to serve as the “control” corridor since it is located just south of Highway 29 and is approximately the same length and geographic location as the four-lane highway. Both highways provide access to similarly sized population, retail, and service centers.

The Phase I Highway 10 comparison segment included the 55-mile corridor between the communities of Osseo and Marshfield. Phase II included an additional 104-mile, two-lane corridor between Marshfield and Appleton.

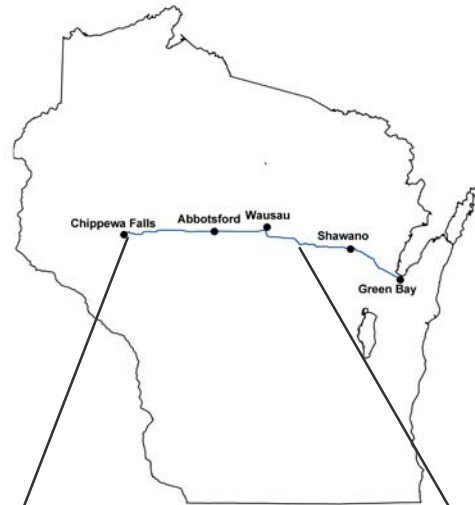
Data restrictions limited comparisons between the two highways to population growth, new business establishment, location of new and expanded manufacturers, average daily traffic counts, per capita income levels, property values, commuting patterns, and traveler expenditures.

**Figure 1**  
**Highway 29 and Highway 10 Study Areas**



STH 29 and USH 10, roughly parallel east-west central Wisconsin corridors.

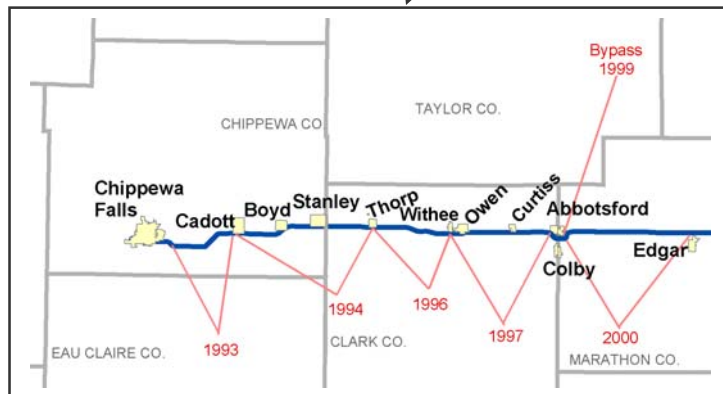
**Figure 2**  
**Highway 29 Corridor**  
**Expansion Schedule**



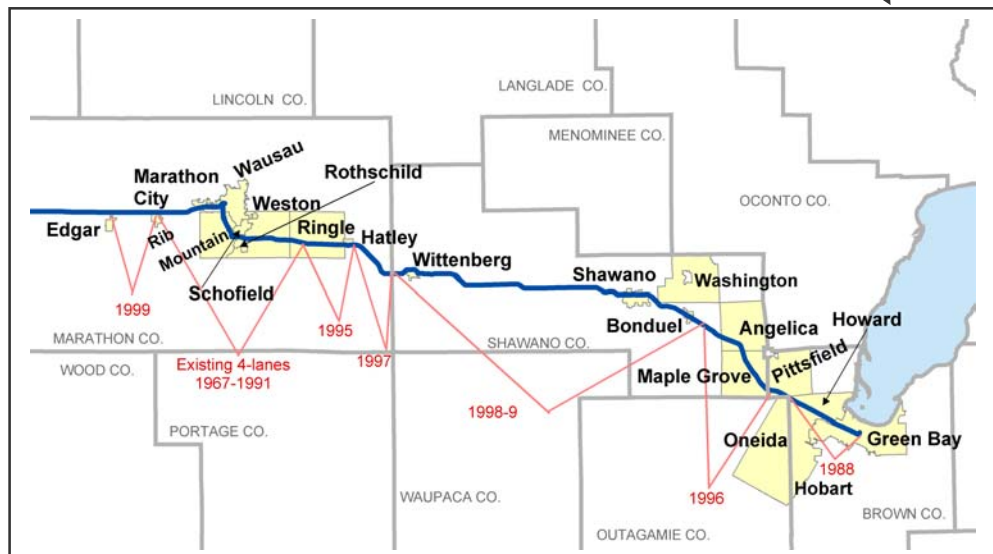
5 10 20 30 40 Miles



**Western section:**



**Eastern section:**



## **Purpose of the Study**

The purpose of this study is to identify the actual and potential economic impacts of a recently constructed four-lane highway facility in Wisconsin. With the recent completion of Highway 29, the Department of Transportation (WisDOT) believed that the timing was appropriate for an economic impact study.

A major justification for upgrading the highway was the potential gains in economic benefits that would result from a freeway conversion in north-central Wisconsin. An important factor motivating the improvement was a belief, promoted by community and business leaders, that a high-quality, four-lane highway connecting cities across the corridor could significantly enhance economic growth in the region.

In 1989, these potential benefits were outlined in an economic impact study (discussed in the following section). Now that the highway expansion is complete, it is important to verify the extent to which these benefits were achieved. One of the goals of this study is to determine whether some of the forecasted economic benefits have been realized.

Although the construction of the highway project was phased over a 12-year timeframe<sup>4</sup>, many of the communities experienced development pressures both during and after the completion of their respective highway segments. A goal of the study was to determine the level of economic activity that has occurred during the construction of the new freeway. To accomplish this, it is necessary to establish a current baseline of economic and land-use information in order to compare it to the 1989 data in future analysis. New economic development during the various phases of the highway improvement project must also be tracked. From a land-use planning perspective, it was also deemed important to evaluate how the communities along the corridor responded

with land-use planning to the highway improvement.

Transportation agencies and economic development professionals often refer to economic benefits of transportation improvements. Such benefits include the ability of the communities along the highway to attract more development, improve the productivity and expand the customer base of existing businesses along the corridor, and increase tourism expenditures in the region. The purpose of this study is to quantify as many of these and other economic benefits along the Highway 29 and Highway 10 corridors as possible. This study will assist WisDOT and other transportation agencies to understand how economic and secondary land-use impacts are related to highway expansion projects.

## **1989 Highway 29 Corridor Study**

In 1989, WisDOT commissioned a study on the potential economic impact of expanding Highway 29 from two to four lanes. This highway was the first in the nation to be analyzed using an economic model to forecast the economic development benefits of a highway capacity improvement. Using the forecasted economic benefits, a benefit/cost analysis was subsequently conducted and the results were used to justify the financial resources needed to build the project.

The most notable aspect of the 1989 study was its breadth. The analysis included an integrated set of simulation and forecasting models of the economic and transportation network to evaluate potential impacts. In addition to projecting benefits to automobile travelers, the study also concentrated on estimating impacts on expansion of existing businesses, attraction potential for new businesses, and the possibility of tourism growth in communities along the corridor. Particular attention was focused on providing a rigorous framework for benefit

assessment that avoids double counting, a common problem in economic impact assessments.

Attention was also given to providing a methodology for estimating transportation and economic impacts that adequately recognizes implications of business efficiency benefits, a shortcoming of some prior economic assessment studies. It is important to note that the linkage between business productivity and transportation investments is better understood today because of recent Federal Highway Administration (FHWA) interest in researching this relationship.

### **FHWA Recommended Study Methodology**

In 2001, FHWA provided funding for a research project, *Using Empirical Information to Measure the Economic Impact of Highway Investments*. The purpose of this project was to broaden the knowledge of economic benefits that may have occurred from highway capacity improvements and propose a methodology for assessing these benefits. The research contract was awarded to Cambridge Systematics, Inc. and Economic Development Research Group (Glen Weisbrod) and a draft report was completed in April 2001.<sup>5</sup>

Results of the study are published in a two-volume report. Volume 1 is a literature review of empirical studies quantifying the economic benefits of transportation projects. This section of the study also contains a discussion of the data requirements needed to conduct the analysis as well as results of interviews with various state DOT staff and university researchers regarding the methods and data sources necessary to conduct the research. This volume also contains recommendations regarding the general principles to be followed by researchers in future highway impact studies.

Volume 2 of the FHWA report proposes research methods and outlines data collection

requirements needed to conduct the economic impact analysis. The proposed research methods and data collection requirements were subsequently adopted by WisDOT and modified for the Highway 29 study.

One of the key observations and conclusions of the FHWA-funded study was that, “there has been a lack of post-project studies documenting the actual economic impacts of built highway projects.” The results of the *Economic and Land-Use Impacts of Wisconsin State Trunk Highway 29* study will help to fill in the knowledge-gap by the proposed methodology.

In collaboration with FHWA, WisDOT agreed to serve as a test case to determine the usefulness and applicability of the proposed methodology and the data requirements for the *Economic and Land-Use Impacts of Wisconsin State Trunk Highway 29* study. In return for WisDOT participation, FHWA provided funding for the Economic Development Research Group to serve as a consultant for the project.

### **Wisconsin Department of Transportation Methodology**

In *Economic and Land-Use Impacts of Wisconsin State Trunk Highway 29*, WisDOT’s research focused on developing computerized geographic representations and databases of current and anticipated economic activity along the highway corridor. This data includes identifying the businesses and levels of employment, as well as the anticipated land uses in each of the communities along the highway. The research will analyze the data collected in the 1989 Economic Study and then compare and contrast this information with the current level of business and land-use activity along the corridor. The gathered current economic and land-use information will also serve as a baseline to measure the incremental economic and land-use impacts along the highway in the future. Economic forecasting was not done for



the first phase of *Economic and Land-Use Impacts of Wisconsin State Trunk Highway 29*, however, economic modeling was part of Phase II, when the entire length of the Highway 29 corridor was studied. The second study phase also determined the model's predictive validity for measuring and anticipating economic activity along Highway 29.

The following indicators were analyzed in this research project:

- GIS applications to locate and map businesses (by street address) and land use activities;
- Survey of a sample of distributors and manufacturers along the highway corridor to identify any additional market reach resulting from the transportation improvement. This information was needed to determine whether businesses are able to sell products over longer distances and into new markets because of the efficiency of the new four-lane facility;
- Survey of municipal leaders and local economic development professionals to determine economic impacts on communities during and after construction;
- Data on tourism expenditures to measure regional tourism spending patterns;
- Business information to measure increases in the number of businesses and manufacturing facilities along the highway corridors;
- County per capita income data to evaluate income growth for communities along the highway corridors;
- Property values to measure land value changes before and after highway construction; and

- Analysis of average daily traffic volumes before, during, and after the construction of the four-lane highway.
- County commuting patterns from the 2000 Census became available in time to be compared with 1990 Census commuting data and included in Phase II of the study.

It would have been beneficial to compare retail sales patterns for the businesses along the study and control corridors during specific timeframes; however, this information was not available from the Wisconsin Department of Revenue.

To obtain some of this data, community profiles were created and development plans were gathered from interviews with community leaders. Cities and villages located within one mile of Highway 29 were interviewed, as well as towns along the corridor with populations of 1,000 or more.<sup>6</sup> Phone interviews were conducted with businesses along the corridor to determine the economic impact of the highway improvement. Property assessors were also contacted by phone to determine changes in property values along the four-lane highway. Many community development issues that may have influenced economic development decisions along the corridor were reported in these interviews. The detailed community profiles are included in the final section of this report. Interview resources are listed in Appendices 1 and 2, and the questionnaire utilized is provided in Appendix 3.

## Summary of Business Impacts

The following business impacts were reported in telephone interviews with manufacturing, service, and retail businesses within the communities along Highway 29. Names of businesses selected for the interviews were obtained from a statewide business directory based on industry category and employee count.<sup>7</sup> WisDOT also followed recommendations from community leaders on the most likely businesses to be impacted by the Highway 29 improvement. Appendix 4 provides a list of the interviewed companies.

### Trucking Impacts

The expanded highway has been an asset for shipping goods within Wisconsin and surrounding states by creating a direct route for trucks traveling the entire corridor and facilitating access to individual business locations. Interviewed manufacturing and service establishments reported that the four-lane highway has been a positive improvement for truck drivers using the Highway 29 corridor. The expanded highway's overall safety, convenience, and higher speed limit have increased the reliability and efficiency of delivering commodities to their destinations. Drivers also reported less fatigue on the four-lane highway.

Trucking companies delivering raw materials and supplies to manufacturers along the corridor reported safer conditions and ease of delivery upon completion of the highway expansion. Moreover, for-hire truck companies have begun offering lower freight charges for deliveries on or near truck routes. As a result, manufacturers using these freight services have saved money on delivery fees.

While traveling on the four-lane highway, trucks are now able to travel at their own speed. Truckers reported that in the past, cars would be dangerously passing trucks and driving too closely behind them. There is now a separate passing lane for cars traveling at faster speeds.

Increased driving speed has shortened delivery trips to Minneapolis, the Fox River Valley, and

all of the communities along Highway 29. Several manufacturers with connections to firms in Minnesota and North Dakota are anxiously anticipating the additional convenience and timesavings that will result with the completion of the Chippewa Falls bypass, anticipated in 2005.

One interviewed cheese packaging company processes and ships five million pounds of cheese per week for such companies as Kraft, Frigo, Kroger, and Schreiber Foods. This packaging company has over 1,500 employees in four plants, three of which are located in Wisconsin and one in Mississippi. Since 1975, this company has owned and operated its own fleet of trucks, comprised of 30 tractors and 76 trailers. The company's fleet manager estimated that the Highway 29 expansion has reduced travel time from the Fox River Valley to processing plants along the highway by 20-30 minutes. Even more time savings will be realized when the Chippewa Falls bypass is completed, since this company also ships 5 or 6 truckloads of finished cheese products daily to the Twin Cities.

In addition to timesavings, the cheese-packaging firm noted other economic benefits from the highway expansion. Since cheese is a perishable product and spoilage is a concern, food processing requires a fast turn-around and on-time performance to maintain freshness and quality. A new benefit was the added reliability factor of completing deliveries in a timely manner.

The above cheese processing company also uses Highway 29 to back-haul paper products when trucks are emptied upon their return to the Fox River Valley. From a transportation perspective, maximum efficiency was achieved in these operations when Highway 29 was opened to four-lane traffic.

For several manufacturing and food processing businesses operating at a national level, the four-lane Highway 29 did not have a major timesaving impact because the few minutes of travel saved along the corridor did not have a

significant overall impact on the total cost of the trip.

The expanded Highway 29's only reported negative impact on trucking was its turning radius on some of the interchanges. For example, in Owen and Abbotsford, there have been complaints about the turning radius at the interchange being too tight for truck movements. Local residents reported that during the winter months, these interchanges could become hazardous. In one community, trucks have been using another route, near a residential area and a golf course, because they preferred an at-grade intersection to the nearby interchange.

### **Service Sector Impacts**

Customers rely on fast and dependable service from businesses in the service sector. When immediate service is required, several travel minutes saved by repair companies can make a big difference in providing high-quality customer service. The interviewed repair shops and agricultural service business indicated that the new four-lane highway has been advantageous to their business because ease of access and faster travel times allow service representatives to reach customers sooner.

A major banking firm reported that the new highway improvements provided easier access for their customers. The bank has since then opened new branch locations in several communities along the highway.

### **Impacts on Commuting Workers**

Interviewed business establishments reported that the four-lane highway has made traveling to work faster, safer and more convenient for their employees. There were no reports of the expanded highway disrupting the workers' travel patterns. In the past, many people felt that the old two-lane highway was unsafe and were afraid to drive on it. With the four-lane highway completed, commuters reported shorter driving times to their places of employment. In addition, commuters said that passing lanes on the highway enable them to drive at their own pace and still get to their jobs on time. Turn-off

lanes along the expanded highway also added to commuting safety.

It is important to note, however, that not all workers used Highway 29 to commute to work. Workers living within or near communities often used local, rural roads, with less traffic and direct routes to work.

Overall, the cities and villages along the four-lane highway considered it to have a positive impact for commuters. Most workers commuting over greater distances tend to use the four-lane highway because it provides faster travel times and safer conditions. Decreased travel times have allowed the commuter-shed to expand in all business sectors, positively impacting businesses that are hiring new employees.

When the Abbotsford bypass was completed in 1999 as part of the Highway 29 expansion, workers commuting downtown indicated that Business Highway 29 became much less congested. Before the bypass, vehicles needed up to 15 minutes on weekdays to access one of the major downtown streets. Downtown driving is currently much less congested with improved visibility and vehicle traffic flow.

Finally, there have also been positive remarks from workers in Chippewa Falls who have saved time commuting to work on the new Seymour Cray Sr. Boulevard. Many workers are anxious for the completion of the Chippewa Falls bypass (scheduled in 2005) in hope that it would further reduce their commuting time.

## Retail Impacts

Interviewed retail establishments reported that the four-lane highway has increased the number of vehicles using Highway 29. However, the expanded highway has also made it more convenient for local residents to travel to other destinations for shopping. Many retail business owners saw the positive impacts of higher traffic levels while recognizing, however, the new challenge of attracting customers to shop at their stores rather than in the larger communities such as Chippewa Falls and Eau Claire. The overall reduction of truck traffic in the downtown area is also expected to have a positive impact on local businesses.

In downtown Chippewa Falls, retail establishments are taking a proactive planning approach to the soon-to-be-completed Chippewa Falls bypass. The downtown has launched a marketing campaign, “Destination Chippewa Falls”. Part of this campaign includes a downtown mural that creates an image of the city. This image will be used in television campaigns and on citywide welcome signs to attract travelers from the highway to the downtown area.

In Abbotsford, the Highway 29 bypass reduced truck traffic through town, enabling more people better access to downtown businesses. A hardware store and a service station, located along Business 29 reported that their business was not negatively affected, since they were mostly dependent upon local customers.

After the construction of the bypass, several Abbotsford businesses: Mr. B’s truck stop, a gas station, and a Hardee’s Restaurant closed down. Hardee’s later relocated to a nearby community along the bypass route.



A 1989 fall photo of Mr. B's Truck Stop (left) and Hardee's Restaurant (right), both of which shut down after the construction of the Abbotsford bypass. Hardee's subsequently moved to another location.

Owners of an ice cream store and a meat and cheese packaging business, one block south of Business Highway 29, reported that the bypass construction initially caused sales to drop. With the increased traffic on Highway 13, however, sales have improved. Local patrons are now purchasing ice cream and travelers and visitors are purchasing the other products. Abbotsford residents and business owners indicated that overall, the Highway 29 bypass has been positive for the community.



A 1989 fall photo of Hawkeye Dairy Store, located one block south of Business Highway 29 in Abbotsford, has been in business since 1965. The ice cream cone replica still attracts customers.

There have been several negative impacts from the Highway 29 expansion. In one community, there was confusion and complaints regarding access to and from certain businesses from off ramps along the highway corridor. In addition, retail businesses along the highway (outside central business districts) experienced a decrease in sales from the “impulse stops” at other businesses of customers passing through the area.

Table 1 provides a summary of findings regarding trucking impacts, commuting patterns, and other impacts of the highway expansion.

**Table 1**  
**Business Interviews: Impact by Industry along Highway 29**

	Manufacturing	Food Processing	Service	Retail
<b>Trucking Impacts</b>	<ul style="list-style-type: none"> <li>▪ Improved safety</li> <li>▪ Improved convenience</li> <li>▪ Less stress on drivers</li> <li>▪ Faster travel time</li> <li>▪ More efficient</li> <li>▪ Expanded business to west as far as Fargo, North Dakota</li> <li>▪ Can ship one extra load per day due to expanded highway</li> <li>▪ Easier delivery for vendors</li> <li>▪ Tight turning radius at some interchanges difficult for truckers</li> </ul>	<ul style="list-style-type: none"> <li>▪ Less stress on drivers</li> <li>▪ Improved safety</li> <li>▪ Same radius of distribution with faster travel times</li> <li>▪ Better commute times for regional deliveries</li> </ul>	<ul style="list-style-type: none"> <li>▪ Highway has cut down on delivery and service time</li> <li>▪ Problem with tight turning radius at some interchanges</li> </ul>	<ul style="list-style-type: none"> <li>▪ Increased convenience of deliveries to retail stores</li> <li>▪ Less truck traffic in downtown areas</li> <li>▪ Better truck access</li> <li>▪ More timely shipments and deliveries</li> <li>▪ Easier transport for multiple store locations along the corridor</li> </ul>
<b>Impact on Employee Commuting Patterns</b>	<ul style="list-style-type: none"> <li>▪ Improved safety</li> <li>▪ Less time needed to get to work</li> <li>▪ Easier access for longer trips</li> <li>▪ For short commutes, drivers often use more direct routes using local roads</li> <li>▪ Better turn lanes for exiting the highway</li> <li>▪ Willingness to travel greater distances for work and shopping</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improved safety</li> <li>▪ Increased speed</li> <li>▪ Easier drive</li> <li>▪ Easier access on and off Highway 29 by the double turn lane</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improved safety</li> <li>▪ Increased speed</li> <li>▪ Driving ease</li> <li>▪ Decreased travel time leading to an expanded commuter-shed</li> <li>▪ Increased labor-shed has a positive economic impact for businesses hiring new employees</li> <li>▪ Employees are willing to commute greater distances, particularly on the western half of Highway 29, where trade centers are more spread out</li> </ul>	<ul style="list-style-type: none"> <li>▪ Improved safety</li> <li>▪ Increased speed</li> <li>▪ Expanded commuter-shed</li> </ul>

**Red** text indicates concerns or problems expressed by businesses.

**Table 1 - Continued**  
**Business Interviews: Impact by Industry along Highway 29**

	Manufacturing	Food Processing	Service	Retail
<b>Other Impacts</b>	<ul style="list-style-type: none"> <li>▪ Improved Traffic circulation</li> <li>▪ Much safer for all drivers</li> <li>▪ Less congestion as a result of the construction of the bypass</li> <li>▪ Predictable travel time</li> <li>▪ Helped keep one business in operation 5 years longer than planned because the expanded highway made it profitable to continue to move product from Green Bay to its business location along the corridor</li> <li>▪ One company's workforce became more diverse because the company was able to broaden its base, creating more stability in resisting recessions</li> <li>▪ Positive overall impact</li> </ul>	<ul style="list-style-type: none"> <li>▪ Cuts an hour off car travel time across the state for sales calls</li> <li>▪ Positive overall impact</li> </ul>	<ul style="list-style-type: none"> <li>▪ Drivers using 4-lane Highway 29 instead of CTH X for safety reasons</li> <li>▪ Better access has allowed more people to use medical facilities located in communities along Highway 29, expanding these facilities' patient base</li> <li>▪ Some recreational businesses, such as ski hills and golf courses, have been able to expand customers and advertising into larger communities that are further away because Highway 29 has allowed greater recreational mobility</li> <li>▪ There is a concern that this improved mobility may negatively affect winter recreational opportunities in smaller communities, because people are now willing to travel further away from the community on the improved Highway 29</li> </ul>	<ul style="list-style-type: none"> <li>▪ Better visibility in downtown areas</li> <li>▪ Better access to central business district businesses</li> <li>▪ Expanded customer base</li> <li>▪ Customer confusion and complaints regarding access to and from specific business locations from the off ramps</li> <li>▪ Less traffic downtown due to bypass</li> <li>▪ More competition for customers from other larger communities</li> <li>▪ Businesses (not located in central business districts) along the highway experienced a decrease in sales from the "impulse stops" of shoppers passing through the area</li> </ul>

**Red** text indicates concerns or problems expressed by businesses.

## Comparison of Economic Changes along a Four-Lane and a Two-Lane Highway: Wisconsin Highway 29 and U.S. Highway 10

This section examines the economic variation between a two-lane and a four-lane corridor to determine economic changes over time. Wisconsin State Highway 29 is an improved four-lane facility with new interchanges and improved intersections on the roadway's rural sections. The control (comparison) highway, U.S. Highway 10, is two-lane and parallels Highway 29 to the south. Both highways are of approximately the same length, serve similarly sized communities, and provide significant connections to manufacturing and regional shopping centers. Highway 10 was recommended to serve as the control corridor by transportation district planning staff based on their knowledge of both the highway and north-central Wisconsin's economy.

Although the entire length of the Highway 29 corridor was only opened to four-lane traffic within the last 18 months, in some of the communities along the route, segments of the highway were completed several years ago. It may be that not enough time has elapsed to observe any significant economic changes in some of the communities along the highway. Nevertheless, economic data was collected to evaluate the incremental economic changes between the two corridors to establish a benchmark for future economic impact studies. Ideally, the corridor should be analyzed again five and ten years after its completion.

The following economic indicators and factors were used to compare growth between the two highway corridors.

### Population

In order to determine the rates of population growth along the two highway corridors, population counts were obtained from the U.S. Census Bureau and the 1990-2000 population growth rate was calculated for the cities, villages, and towns within 5 miles of each corridor. Results show that along Highway 29 from Chippewa Falls to Green Bay, 118 cities, villages, and towns within 5 miles of the highway had a total population of 428,335 in 1990 and 476,568 in 2000. This represents a population increase of 11%.

Along Highway 10 from Osseo to Appleton, population changes from 1990 to 2000 were also recorded in the 110 cities, villages, and towns located within 5 miles of the highway. The total population for these communities rose from 312,364 in 1990 to 351,257 in 2000, representing a corridor population increase of 12%. Appendices 5 and 6 provide population statistics for communities along the two corridors.

A comparison between the two-lane and the four-lane highway reveals that the Highway 29 corridor's population grew at slightly lower rate over the eleven-year period. During the same period, Wisconsin's population growth rate was slightly lower than that of both corridors, at 9.6%.

### Tourism Expenditures

The Wisconsin Department of Tourism has been following tourism expenditures in the state's counties since 1992. *Economic Impact of Traveler Expenditures on Wisconsin*, an annual report by Davidson-Peterson Associates, a marketing research firm under contract with the Department of Tourism analyzes traveler



expenditures and measures the economic benefits that Wisconsin residents and local governments derive from traveler expenditures. Most of the research involves on-site, year-round surveys, intended to capture the users'/visitors' full tourist season.

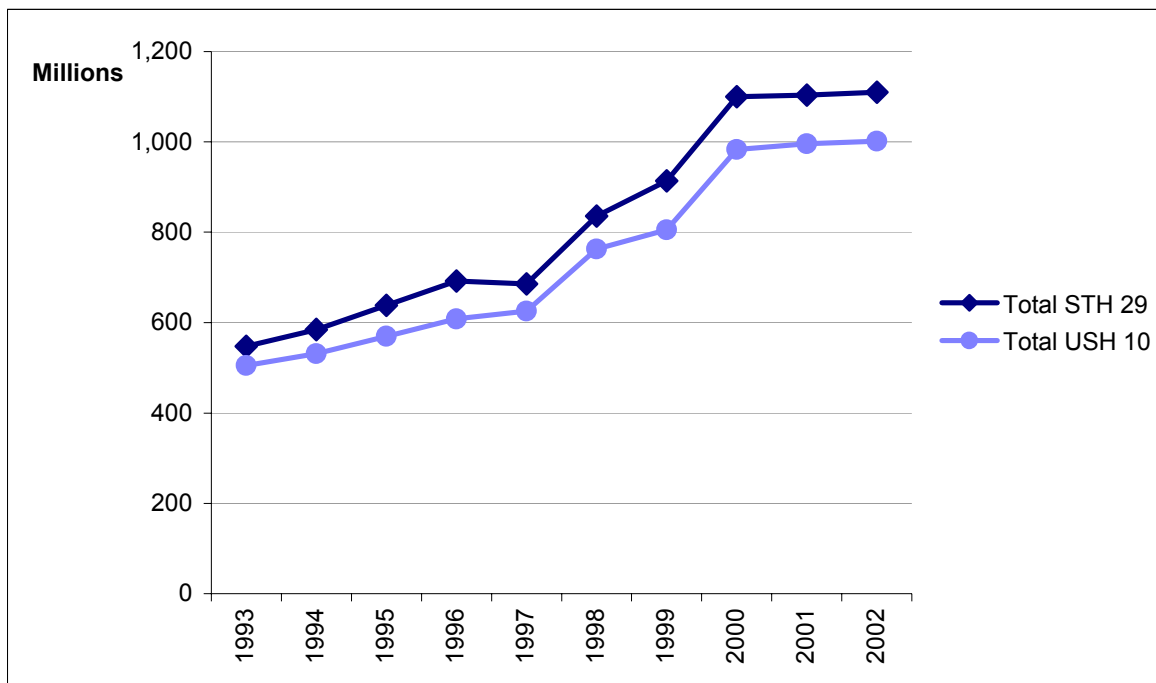
Using the results of David Peterson Associates' *Economic Impact* report, the Wisconsin Department of Tourism has provided WisDOT with annual tourism expenditure data from 1993 to 2002. Over this period, the level of tourism spending in counties along Highway 29 grew at approximately the same rate as along the control highway, with total expenditures along Highway 29 increasing by 103% and along Highway 10 by 98%, both slightly below the state average of 121%.

Figure 3 illustrates tourism expenditures along the two highways. County tourism (or traveler) expenditure figures are available in Appendix 7.

The tourism expenditure gap between the study and the control highway corridors may be attributed to the increasing number of highway-oriented businesses established along the four-lane highway. The first wave of development, as revealed by community interviews was often gas stations, convenience stores, restaurants, motels, and truck stops, all of which are highway-oriented type businesses that attract tourists.

To the traveling public, the four-lane highway served as a gateway to tourism destinations in northern Wisconsin. In Door County, for example, one of the common visions of tourism leaders was the anticipation of more visitors from the Twin Cities in Minnesota. The subsequent rise of tourism expenditures along Highway 29 may be attributed to the increasing number of vehicles (Annual Average Daily Traffic-AADT) on the highway.

**Figure 3**  
**Traveler Expenditures Highway 29 and Highway 10**  
**1993-2002**



Source: Wisconsin Department of Tourism, 2003.

## Business Growth

Data from two business directories was used to analyze the change in the number of businesses along both highway corridors during 1995-2003, shown in Tables 2 and 3.<sup>8</sup> The results show business growth along both corridors over this eight-year period. Along the four-lane Highway 29, from Chippewa Falls to Green Bay, the

number of businesses increased from 10,464 to 16,256 businesses, an increase of 5,792 businesses (55%) from 1995 to 2003. Along the two-lane Highway 10, from Osseo to Appleton, the number of businesses along the corridor increased by 1,747 (17%), three times less during the same period.<sup>9</sup>

**Table 2**  
**Highway 29 Business Growth\***  
**1995-2003**

	Number of Businesses 1995	Number of Businesses 2003	Change
<b>Abbotsford</b>	126	184	46%
<b>Bonduel</b>	101	170	68%
<b>Boyd</b>	42	45	7%
<b>Cadott</b>	103	149	45%
<b>Chippewa Falls</b>	719	1,424	98%
<b>Colby</b>	64	125	95%
<b>Curtiss</b>	12	32	167%
<b>Edgar</b>	59	112	90%
<b>Green Bay**</b>	6,106	8,915	46%
<b>Hatley</b>	20	87	335%
<b>Marathon City</b>	75	158	111%
<b>Oneida</b>	7	153	2,086%
<b>Owen</b>	64	84	31%
<b>Ringle</b>	12	39	225%
<b>Rothschild</b>	109	164	50%
<b>Schofield</b>	509	736	45%
<b>Stanley</b>	117	182	56%
<b>Thorp</b>	167	208	25%
<b>Wausau</b>	1,904	3,062	61%
<b>Withee</b>	38	60	58%
<b>Wittenberg</b>	110	167	52%
<b>Total</b>	<b>10,464</b>	<b>16,256</b>	<b>55%</b>

Sources: Select Street Atlas 1995, ReferenceUSA, June 2003.

\*Manufacturers included.

\*\*Includes Howard

**Table 3**  
**Highway 10 Business Growth\***  
**1995-2003**

	<b>Number of Businesses 1995</b>	<b>Number of Businesses 2003</b>	<b>Change</b>
<b>Amherst</b>	101	162	60%
<b>Amherst Junction</b>	25	49	96%
<b>Appleton</b>	5,639	5,650	0%
<b>Auburndale</b>	54	67	24%
<b>Fairchild</b>	26	29	12%
<b>Fremont</b>	145	149	3%
<b>Granton</b>	32	50	56%
<b>Hewitt</b>	9	14	56%
<b>Junction City</b>	143	55	-62%
<b>Marshfield</b>	726	1,400	93%
<b>Menasha</b>	852	841	-1%
<b>Milladore</b>	11	31	182%
<b>Neillsville</b>	176	343	95%
<b>Nelsonville</b>	7	10	43%
<b>Osseo</b>	89	198	122%
<b>Stevens Point**</b>	1,679	2,005	19%
<b>Waupaca</b>	462	885	92%
<b>Weyauwega</b>	210	195	-7%
<b>Total</b>	<b>10,386</b>	<b>12,133</b>	<b>17%</b>

Sources: Select Street Atlas 1995, ReferenceUSA, June 2003.

\*Manufacturers included.

\*\*Includes Park Ridge

### Locations of New and Expanding Manufacturing Plants

According to WisDOT data, during the 1990-2001 period, approximately 72,000 jobs were created by over 2,400 manufacturing plants that either located or expanded in Wisconsin. The vast majority, or 88% of these plants located within 5 miles of the state's backbone highway system. For this study, new and expanded manufacturing plant locations within a 5-mile radius of the four-lane Highway 29 and two-lane Highway 10 corridors were also identified.

Table 4 shows the significant difference in manufacturing plant location patterns along the two highways. Along the Highway 10 segment, the number of manufacturing plants was higher (186 as opposed to 151) than along Highway 29. However, new or expanding manufacturers along Highway 29 created 768 more jobs. This difference is significant because manufacturing wages and benefits are, on average, higher than those of other industrial sectors. The manufacturing sector also drives other business sectors with benefits that cascade throughout the local economy.

**Table 4**  
**Total New and Expanded**  
**Manufacturers Within 5 Miles**  
**of Highways 29 and 10**

<b>Highway 29: Chippewa Falls to Green Bay</b>
<b><u>1990-2001</u></b>
151 companies
6,269 jobs
<b>Highway 10: Osseo to Appleton</b>
<b><u>1990-2001</u></b>
186 companies
5,501 jobs

Sources: WisDOT, Wisconsin Department of Commerce, January 2002.

### Per Capita Income

Per capita income (the mean personal income, computed for every man, woman, and child in a geographic area) tables were created for counties along the length of both the four-lane and two-lane highways during 1990-2000, using data from the U.S. Department of Commerce, Bureau of Economic Analysis. During this period, per capita income for the counties along the two-lane Highway 10 grew by 49-62%, averaging 56% growth. This rate exceeded by one percentage point the statewide average of 55%.

Growth in per capita income in counties along the four-lane expressway ranged from 49% to 64%, averaging at 57%, (2 percentage points over the state average). Overall, counties along Highway 29 experienced slightly higher per capita growth rates than counties along Highway 10 during the 1990-2000-analysis-period. Appendix 8 provides detailed per capita income figures for both highway corridors.

### Annual Average Daily Traffic Counts

Annual average daily traffic counts for the four-lane and two-lane highways were obtained for the 1991-2000 period from WisDOT's Highway Traffic Volume Database. To determine the incremental growth of the volume of traffic on both highway corridors for this ten-year period, traffic volumes for both highways were calculated on a per-mile basis.

As seen in both Table 5 and Figure 4, Highway 29 experienced a 56% increase in traffic volume on a per mile basis. Highway 10 traffic volumes were slightly lower, with a 52% growth rate during the ten-year period.

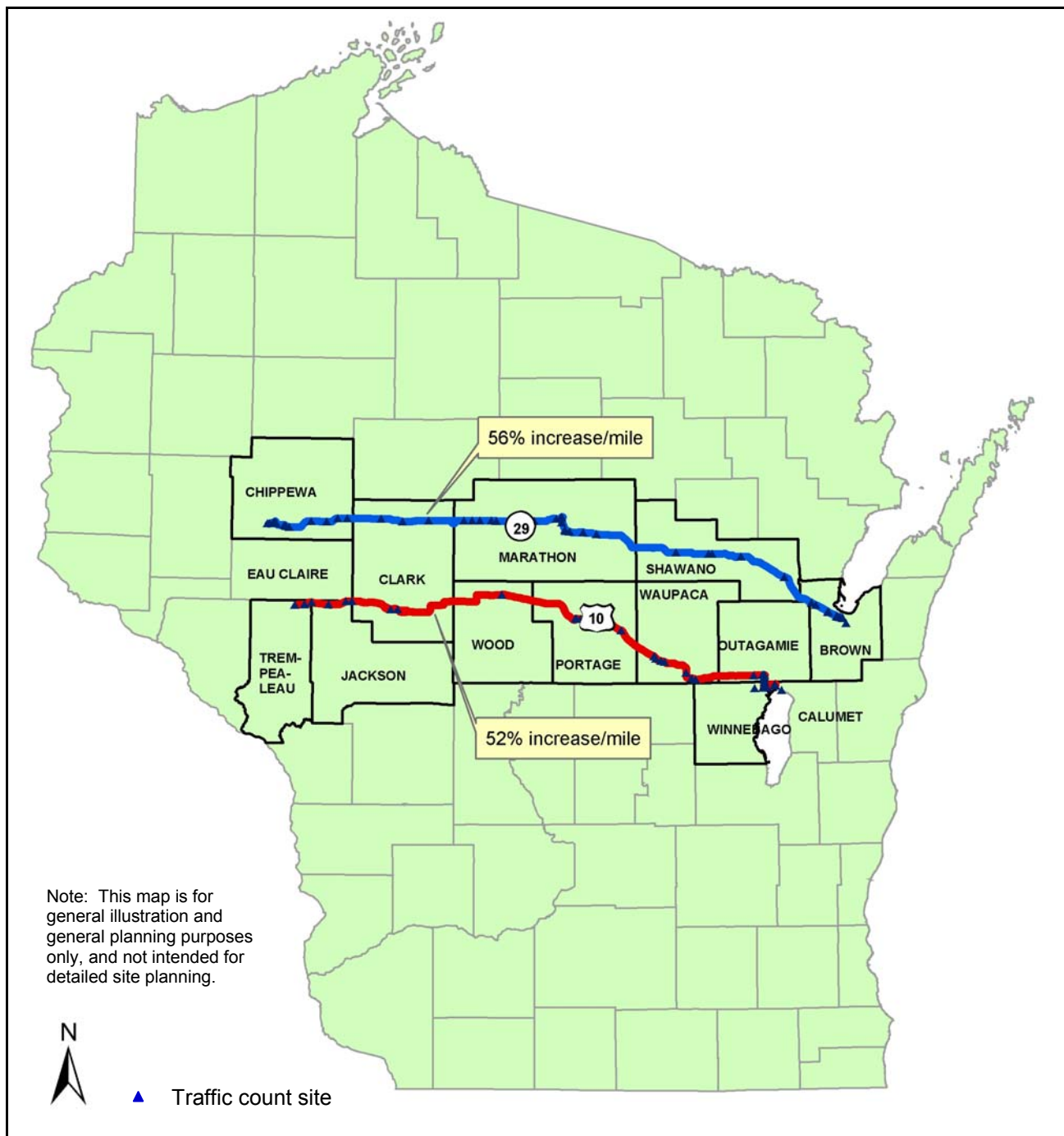
It is anticipated that traffic volumes will continue to increase on the four-lane highway, probably at a faster rate than in the past. This increase in traffic is likely to provide economic opportunities for more development in the communities along the highway.

**Table 5**  
**Average Annual Daily Traffic Per Mile**

	Highway 10 AADT/Mile	Growth	Highway 29 AADT/Mile	Growth
1991	330		569	
2000	502	52%	889	56%

Source: WisDOT, December 2002.

**Figure 4**  
**1991-2000 Average Annual Daily Traffic/Mile**  
**Highway 29 and Highway 10**



Note: This map is for general illustration and general planning purposes only, and not intended for detailed site planning.

A Comparison of 1991-2000 Average Annual Daily Traffic per mile along STH 29 and USH 10. Source: WisDOT, December 2002.

## County Commuting Patterns

Commuting patterns (movements of workers between county boundaries), are analyzed to gain understanding of a local economy's structure. Commuters are divided into two categories: *incommuters* and *outcommuters*.<sup>10</sup> Incommuters into a local economy (a county, in this study) offer local retail and service businesses additional sales.<sup>11</sup> Outcommuters, on the other hand, provide the potential for retail and service sales "leakage".<sup>12</sup> A high level of incommuting suggests that a county is providing employment opportunities for both residents and non-residents, and that these opportunities are attractive to non-residents, who are willing to travel for employment. Wage differentials, better amenities (such as affordable housing, lower taxes, or less crime), and transportation infrastructure are just several of the many factors that can influence commuting patterns.

To identify economic trends and changes after the Highway 29 expansion, commute patterns in counties along it were compared to commute patterns in counties along Highway 10. The comparison was performed with the help of the University of Wisconsin Extension-Center for Community Economic Development, by analyzing County-to-County Worker Flow data from the 1990 Census (capturing commuting trends just after the highway expansion began) and 2000 Census (capturing post-construction trends in most communities). It is important to note that the analyzed commuting totals include Clark and Outagamie Counties, which are located along both the two-lane and four-lane highway corridors.

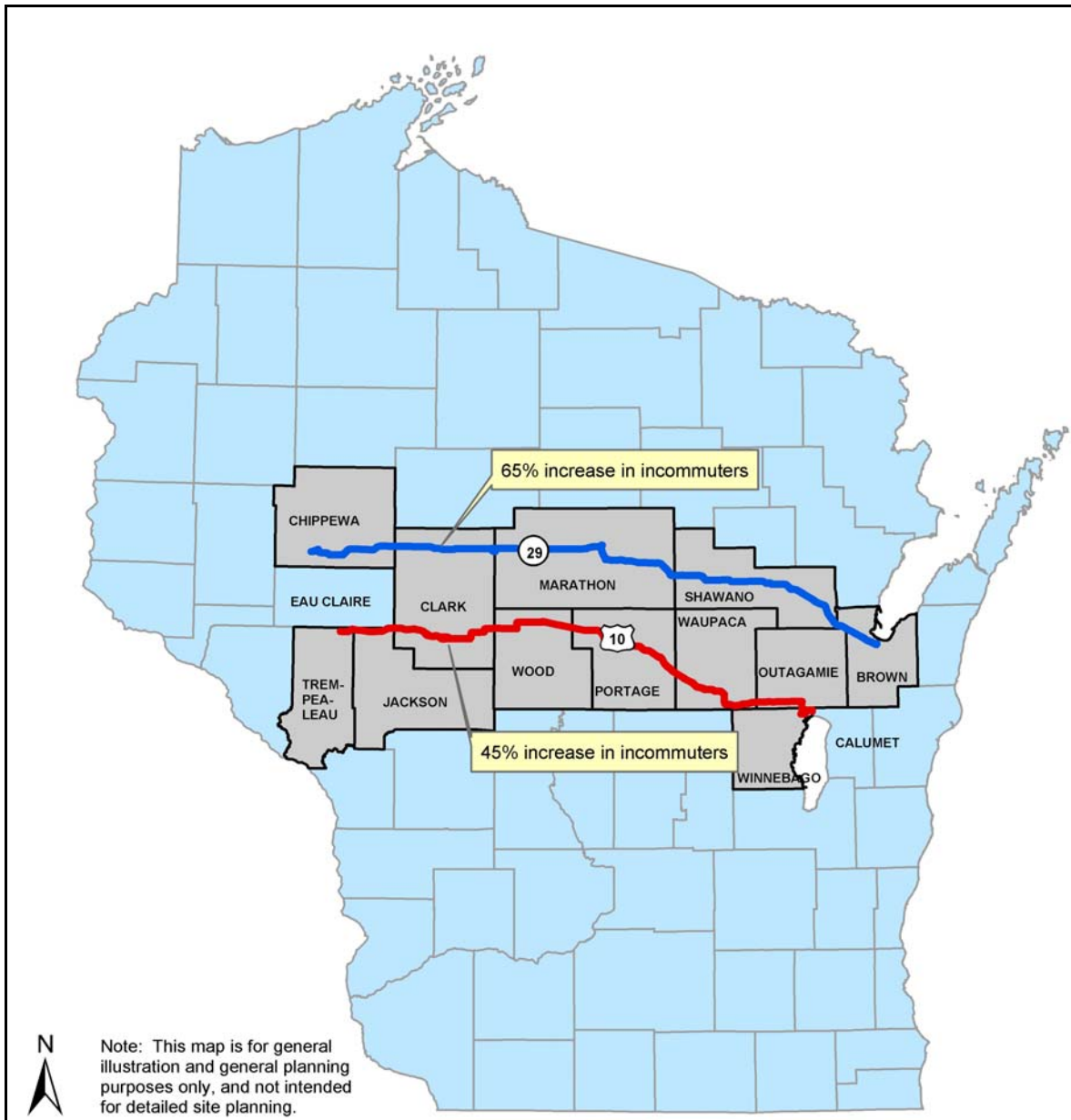
In a comparison of 1990 and 2000 Worker Flow data, the total number of incommuters into counties along USH 10 in 1990 and 2000 was 62,199 and 90,011, respectively, while smaller numbers of incommuters traveled for work into counties along STH 29 during the time period (49,799 in 1990 and 82,155 in 2000).

While in absolute numbers there were more incommuters along Highway 10 over the 1990-2000 period, analysis of the change in incommuters along the two highway corridors reveals a *higher* increase in incommuters along Highway 29 over the analysis period. In 2000, 32,356 more incommuters than in 1990 traveled to counties along the STH 29 corridor, a 65% increase. Along Highway 10, the increase was by 27,812 persons, or 45%. The map in Figure 5 illustrates these changes.

While highway infrastructure can increase the number of commuters, it is difficult to determine whether these opportunities are directly attributed to the highway expansion. The higher rise in incommuters along Highway 29 suggests that more economic opportunities developed in counties along the four-lane highway. Interviews with both businesses and community representatives indicate that the Highway 29 expansion has reduced commuting times and costs in some communities, thereby drawing workers from greater distances. It is also likely that new business development in communities along the four-lane highway has contributed to increased incommuting into counties along Highway 29. Appendix 9 shows 1990 and 2000 county incommuting and outcommuting totals and changes along the two highway corridors.

The commuting data also reveals that Brown and Marathon Counties along Highway 29 and Wood and Portage Counties along Highway 10 stand out with high levels of *self-sufficiency*, as over 80% of their local workforce was employed within their respective county boundaries between 1990 and 2000. Self-sufficiency rates along Highway 29 ranged from 67% to 93% in 1990 and 59% to 92% in 2000. Self-sufficiency rates along Highway 10 ranged from 73% to 89% in 1990 and from 67% to 85% in 2000.

**Figure 5**  
**1991-2000 Change in Incommuters**  
**Highway 29 and Highway 10**



From 1990 to 2000, the number of incommuters into counties along STH 29 grew by 32,356 (65%), while the number of incommuters into counties along USH 10 grew by 27,812 (45%).



Overall, both highway corridors are similar in their counties' degrees and patterns of self-sufficiency.<sup>13</sup> It is important to note that while increased self-sufficiency is desirable by counties and communities, regional cooperation in job creation efforts is also important and should be included as part of an economic development strategy.<sup>14</sup>

According to statewide worker-flow analysis, of Wisconsin's 72 counties, only 21 are providing jobs at 80% or more of its residents.<sup>15</sup> In 1990,

Wisconsin counties on average provided local employment opportunities for about 79% of the employed residents. In 2000, this number had dropped to 74%.<sup>16</sup> Similarly, the level of self-sufficiency in counties along the highway 29 and Highway 10 corridors has declined by 1-6 percentage points between 1990 and 2000. Tables 6 and 7 show the percentage of residents working within their county boundaries along the two highway corridors.

**Table 6**  
**Percent of Resident Labor Force**  
**Employed within their County of Residence**  
**1990-2000: Highway 29**

County	% Working within the County (1990)	% Working within the County (2000)
Brown	93%	92%
Chippewa	75%	66%
Clark*	73%	67%
Marathon	88%	87%
Outagamie*	75%	70%
Shawano	67%	59%

Source: U.S. Census 1990, 2000

\* County common to both highway corridors

**Table 7**  
**Percent of Resident Labor Force**  
**Employed within their County of Residence**  
**1990-2000: Highway 10**

County	% Working within the County (1990)	% Working within the County (2000)
Clark*	73%	67%
Jackson	75%	75%
Outagamie*	75%	70%
Portage	87%	81%
Trempealeau	77%	71%
Waupaca	76%	67%
Winnebago	81%	75%
Wood	89%	85%

Source: U.S. Census 1990, 2000

\* County common to both highway corridors

Tables 8 and 9 show changes in the total number of county residents employed locally along both highway corridors between 1990 and 2000. In this comparison, Highway 29 corridor counties show both a higher absolute and percentage increase. During this period, there was an increase of 33,043 (14%) locally

employed residents in counties along Highway 29, while the increase in counties along Highway 10 was only 18,195 persons (9%). Statewide, the number of locally employed residents grew from 18,846,582 in 1990 to 1,988,905 in 2000, an increase of 8%.

**Table 8**  
**Change in the Number of Residents**  
**Employed within their County of Residence**  
**1990-2000: Highway 29**

County	Residents who are employed locally 1990	Residents who are employed locally 2000	Change in residents employed locally	% Change
Brown	90,848	108,890	18,042	20%
Chippewa	17,609	18,000	391	2%
Clark*	10,094	10,443	349	3%
Marathon	50,016	57,000	6,984	14%
Outagamie*	52,703	59,424	6,721	13%
Shawano	11,087	11,643	556	5%
<b>STH 29</b>	<b>232,357</b>	<b>265,400</b>	<b>33,043</b>	<b>14%</b>

Source: U.S. Census 1990, 2000

\* County common to both highway corridors

**Table 9**  
**Change in the Number of Residents**  
**Employed within their County of Residence**  
**1990-2000: Highway 10**

County	Residents who are employed locally 1990	Residents who are employed locally 2000	Change in residents employed locally	% Change
Clark*	10,094	10,443	349	3%
Jackson	5,385	6,532	1,147	21%
Outagamie*	52,703	59,424	6,721	13%
Portage	25,644	28,431	2,787	11%
Trempealeau	9,155	9,810	655	7%
Waupaca	15,750	16,796	1,046	7%
Winnebago	56,257	60,429	4,172	7%
Wood	30,009	31,327	1,318	4%
<b>USH 10</b>	<b>204,997</b>	<b>223,192</b>	<b>18,195</b>	<b>9%</b>

Source: U.S. Census 1990, 2000

\* County common to both highway corridors

## Property Values

Interviewed local tax assessors indicated an increase in the values of properties sold near the expanded highway. In some cases, the property values increased substantially, depending on the type of development. In addition, cumulative equalized property values from the Wisconsin Department of Revenue for communities along the four-lane highway were compared to equalized property values along the two-lane highway and to statewide averages. Results

show that from 1998 to 2003, Highway 10 corridor cumulative equalized property values grew at a lower rate (38%) than did the Highway 29 communities (40%), with both highways' property values growing less than the 45% statewide total.<sup>17</sup> This slight difference is more indicative of the economy of central Wisconsin in general than of the Highway 29 expansion.

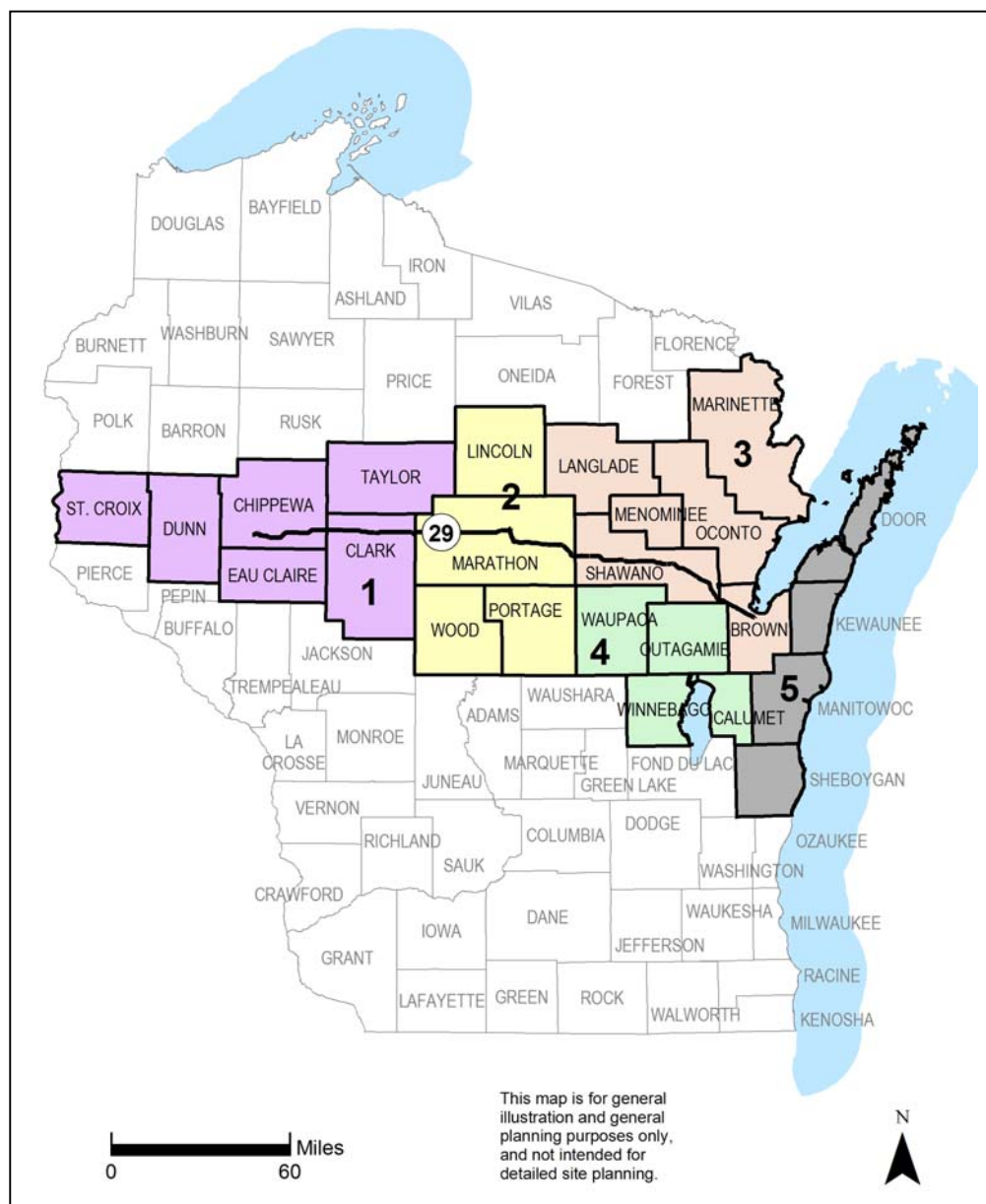
# Economic Forecasting: Comparison of Original 1989 Study and Current Study

## Estimation of Trucking Costs and Business Growth Impacts

In the 1989 Highway 29 Study, analytical efforts to assess the potential economic impacts of improving Highway 29 were focused on a broad band of North-Central Wisconsin

counties, extending from Door County and the Lake Michigan coast on the east to the Minnesota border near the Twin Cities. This region of the state was subdivided into the following five zones, comprising 24 counties.

**Figure 6**  
**1989 Highway 29 Study - Analytical Zones**



Zone 1 – West Zone (St. Croix, Dunn, Chippewa, Eau Claire, Taylor, and Clark counties);

Zone 2 – Central Zone (Lincoln, Marathon, Wood, and Portage counties);

Zone 3 – Northeast Zone (Langlade, Menominee, Shawano, Oconto, Brown, and Marinette counties);

Zone 4 – Fox Valley Zone (Waupaca, Outagamie, Winnebago, and Calumet counties);

Zone 5 – Lakeshore Zone (Door, Kewaunee, Manitowoc, and Sheboygan counties).

It is known that four-lane improvements can reduce travel time for trucks on the highway, providing cost savings for businesses, including trucking companies that transport products over the route. As was predicted in the original Highway 29 study, those savings result in lower product costs, making regional businesses more competitive and therefore better able to expand output and employment. The value of the benefits depends heavily on the extent to which regional producers use the highway for truck shipping.

The direct truck cost savings and consequent expansion of regional producers spur further developments as business suppliers to those producers expand their production (“indirect effects”), and as other regional businesses expand because of additional spending, generated as workers spend their wages (“induced effects”). In the 1989 study, all these economic effects were estimated for the 1990 – 2020 period using REMI, an economic forecasting model. The REMI model forecasts how reductions in relative business costs (for each industry in the region) would cause expansion in overall business growth.

The 1989 original study (which made forecasts based on 1986 base year data) addressed all the effects of these potential savings in terms of changes in output, employment, and disposable personal income in each of the five analysis zones and in the remainder of the state. The current study assesses the same savings using an updated forecasting model that incorporates more background data than the model used in 1989. The current forecasting model is calibrated using 2001 base year data.

The 1986-based data estimates of the effects of transportation cost savings due to the Highway 29 improvements were consistently less than current forecasts. Similarly, the original control forecasts (predictions of conditions *without* any improvements to Highway 29) of economic values in the analysis regions were significantly less than current control forecasts. However, as the original study predicted, the transportation cost savings effects are most pronounced in the western analysis zone, where the urban agglomeration effects of the Twin Cities area are felt, and in the urban labor-shed region of Green Bay and Brown County.

According to economic modeling in the original 1989 study, the four-lane expansion of Highway 29 was predicted to provide a statewide disposable personal income benefit of \$602 million over the 30-year period. The current study estimates income benefit to be much higher, amounting to nearly \$1.4 billion by the year 2020.

The original study also estimated that statewide business output would be nearly \$88 million greater in 2020 with the expansion, compared to what it would be without the improvements. The current forecasting update estimates that business output will be \$412 million greater in 2020. In terms of employment, the original study estimated there would be 474 additional jobs statewide in 2020, because of the Highway 29 expansion. The current update estimates

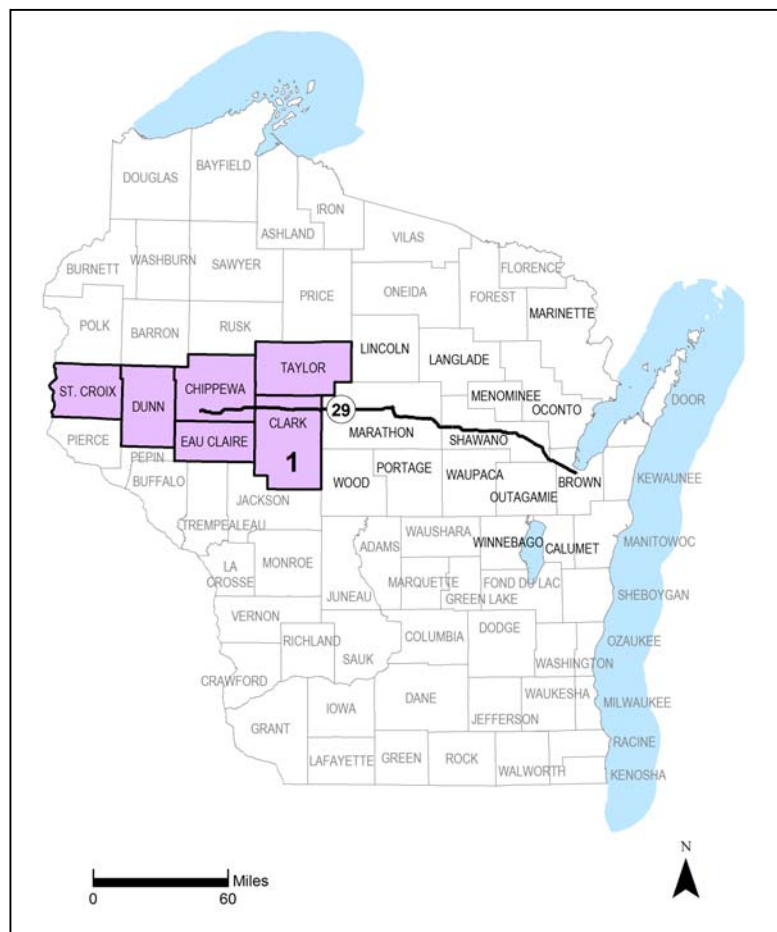
there will be 2,400 additional jobs in 2020.

The following is a comparison, by zone, of 1986-based forecasts, used in the 1989 study with current, 2001-based forecasts, developed for this study. It is important to note that the 1989 study presented the forecast results for regional output increases and employment

increases due to truck cost savings in the year 2020 alone. It also presented forecast results for the variable of disposable personal income as the sum of changes due to truck cost savings between 1990 and 2020. This report will therefore follow that convention to facilitate comparison of the two studies.

## Western Zone

**Figure 7**  
**Western Zone**



The original study forecast output in the Western Zone, shown above in Figure 7, to increase by 79% with the estimated truck cost savings due to highway improvements. Current

model forecasts, however, estimate output in this Zone to increase by 212% over the same period. Part of the discrepancy in forecasts results from an underestimation of

regional output by the year 1990: the original control forecast, made in 1986, was \$7.9 billion for 1990, but the actual output for 1990 was already up to \$9.1 billion.

Another source of discrepancy is the underestimation of truck cost savings to industries in the region. The original estimation of the change in 2020 regional output due to truck cost savings was \$17.5 million (in 1996 dollars), and the estimation now is \$171 million (in 1996 dollars). Over 50% of the transportation cost savings will accrue to four industries: Machinery & Computers, Retail Sales (apart from Eating & Drinking businesses), Rubber & Plastics, and Food Manufacturing.

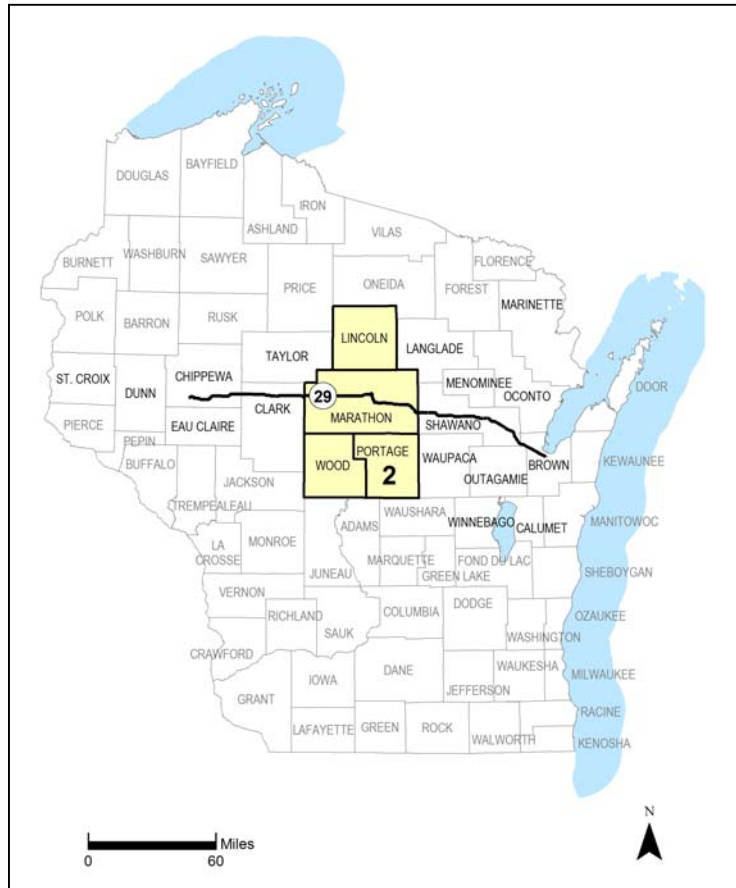
Employment in the Western Zone was originally forecast to increase by 18% between 1990 and 2020, with 92 jobs being added in 2020 due to business expansions resulting from trucking cost savings. The current forecast estimates that employment in the region will grow by 42% over the analysis period. Also according to the current forecast, by 2020 a little over 1,000 new jobs will exist as a result of transportation cost savings to businesses. Those jobs will be concentrated in the Retail, Medical services, and Non-Profit Organizations sectors. This increase in employment will be the largest of all the study regions. The concentration of jobs in the service and retail industries reflects this region's proximity to the Twin Cities region of Minneapolis-St. Paul.

As with the other economic indicators, the original Highway 29 study significantly underestimated growth in disposable personal income growth in this region resulting from transportation cost savings. In 1986, the sum of the increases in personal income over the 1990-2020 period was forecast to be \$117 million (expressed in 1996 dollars). However, the current forecast estimates the sum of disposable personal income growth over the period 2001-

2020 at \$587 million. Again, it appears that the effects of the vibrant Twin Cities region will spill more easily than previously estimated into Western Wisconsin with the improvement of this key highway corridor.

## Central Zone

**Figure 8**  
**Central Zone**



In the Central Zone (shown above in Figure 8), which is traversed North-South by Highway 51 and East-West by Highway 29, the difference between the growth in output that was forecast in 1986 and that which is forecast now is not as great as in the Western Zone. The original study estimated output growth between 1990 and 2020 to be 100%. With the truck cost savings due to highway improvements, that output growth over the period was predicted to be 101%. Currently, with highway improvements in place and with the newer predictive model, output over the 1990-2020 analysis period is estimated to be 139%.

As in forecasts for the Western Zone, a small part of the difference is due to an underestimation in the original study of regional output by the year 1990: the original control forecast, made in 1986, was about \$11 billion for 1990, but the actual output for 1990 was nearly \$13 billion. As with the Western Zone predictions, the original estimates of transportation cost savings due to highway improvements were low. The original estimation of the change in 2020 regional output due to truck cost savings was \$20 million (1996 dollars), and the estimation now is \$78 million (1996 dollars). Here, the major portion of



transportation cost savings (nearly 60%) are estimated to accrue to six industries: Machinery & Computers, Retail Sales (apart from Eating & Drinking businesses), Paper, Fabricated Metals, Medical, and Lumber.

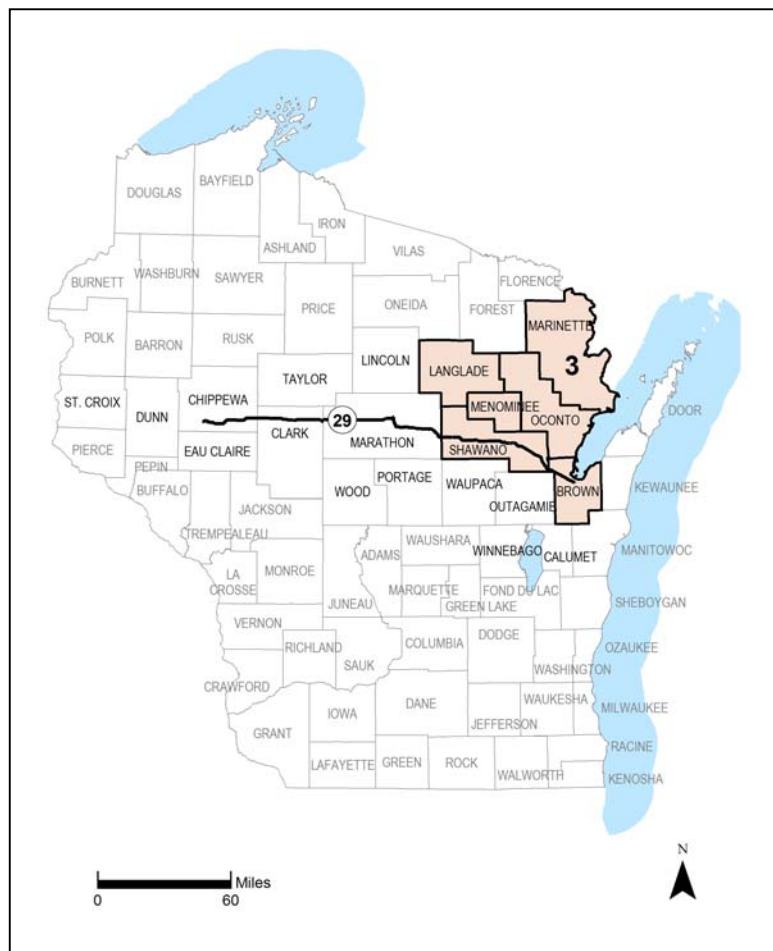
The original forecasted employment growth due to truck cost savings in the Central Zone was close to the current forecast in percentage terms. The 1986-based forecast estimated an employment increase of 34% over the period, with 114 new jobs resulting in 2020 because of the highway improvements. The current forecast, which incorporates actual 1990 data,

estimates an increase of 33% over the period. In 2020, there will be an estimated 520 new jobs in the region. The jobs will be concentrated in the Retail, Medical services, Non-Profit Organizations, and Insurance sectors.

Disposable personal income growth due to truck cost savings in the Central Zone was originally forecast to a little over \$145 million by 2020. The current forecasting model estimates personal income growth due to transportation cost savings in this region at nearly \$312 million by 2020.

## Northeast Zone

**Figure 9**  
**Northeast Zone**



Output in the Northeast Zone (shown in Figure 9), which includes Green Bay and Brown County, was forecast to grow by 110% between 1990 and 2020. Currently, output is forecast to grow by 189% in that same analysis period. Again, as in the Western and Central zones, actual output had already surpassed the predicted output by 1990 (the original study forecast output at \$14.4 billion by 1990, but actual output in 1990 was \$15.2 billion).

Truck cost savings due to highway improvements were underestimated in the Northeast Zone. The original estimation of the change in 2020 regional output due to truck cost savings was \$20.2 million (in 1996 dollars), and the current estimation is \$113 million (in 1996 dollars). The major portion of transportation cost savings (nearly 60%) in this zone is estimated to accrue to five industries: Machinery & Computers (with 28% of total savings), Paper (13% of total regional savings), Food Manufacture (7% of total savings), Retail Sales (apart from Eating & Drinking businesses), and Construction.

With these truck cost savings, industries in the Durable Goods Manufacturing industries will lead in regional output increases and can be

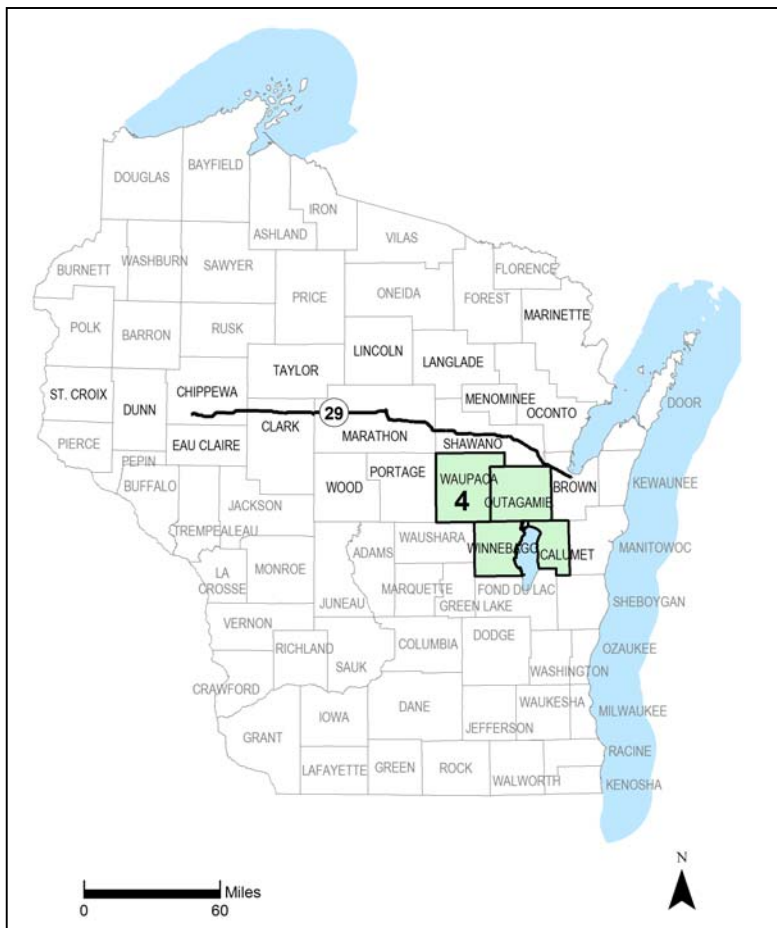
expected to grow by over 600% between 1990 and 2020. The other leading industrial sectors will be Finance, Insurance, and Real Estate (expected to grow by 193%); and Wholesale Trade (expected to grow by 174%).

Employment in the Northeast Zone was originally forecast to increase by 24% between 1990 and 2020, with 108 jobs being added in 2020 due to business expansions resulting from trucking cost savings. The current forecast estimates that employment in the region will grow by 44% over the analysis period. By 2020, just over 600 new jobs will exist as a result of transportation cost savings to businesses. Those jobs will be concentrated in the Retail, Medical services, Paper Manufacturing, and Construction sectors.

Disposable personal income growth due to transportation cost savings in this region of the state is now expected to be more than double the level originally forecast in 1986. The original forecast estimated the change in personal income to amount to over \$137 million by 2020. However, the current forecast for change in personal income in the region due to cost savings is \$351 million by 2020.

## Fox Valley Zone

**Figure 10**  
**Fox Valley Zone**



Output in the Fox Valley Zone, shown in Figure 10 above, was originally forecast to grow by 124% between 1990 and 2020, including increases due to truck cost savings. Currently, output is expected to increase by 189% during the same analysis period. The original forecast for 1990 output was \$18.8 billion and actual output was \$19 million, so the original control forecast was reasonably accurate and not too far off from the current forecast (using the updated economic model).

However, the change in output due to truck cost savings in this region in 2020 was originally

estimated to be about \$7 million, whereas the current estimate of those savings is nearly \$16 million in 2020. In the Fox Valley Zone, the vast majority of the transportation cost savings will accrue to three industrial sectors: Machinery & Computers (42%), Paper Manufacturing (24%), and Electrical Equipment Manufacture (8%).

The original forecast of employment growth due to truck cost savings in the Fox Valley Zone was close to the current forecast. The 1986 forecast estimated an employment increase of 22% over the period, with 34 new jobs in 2020

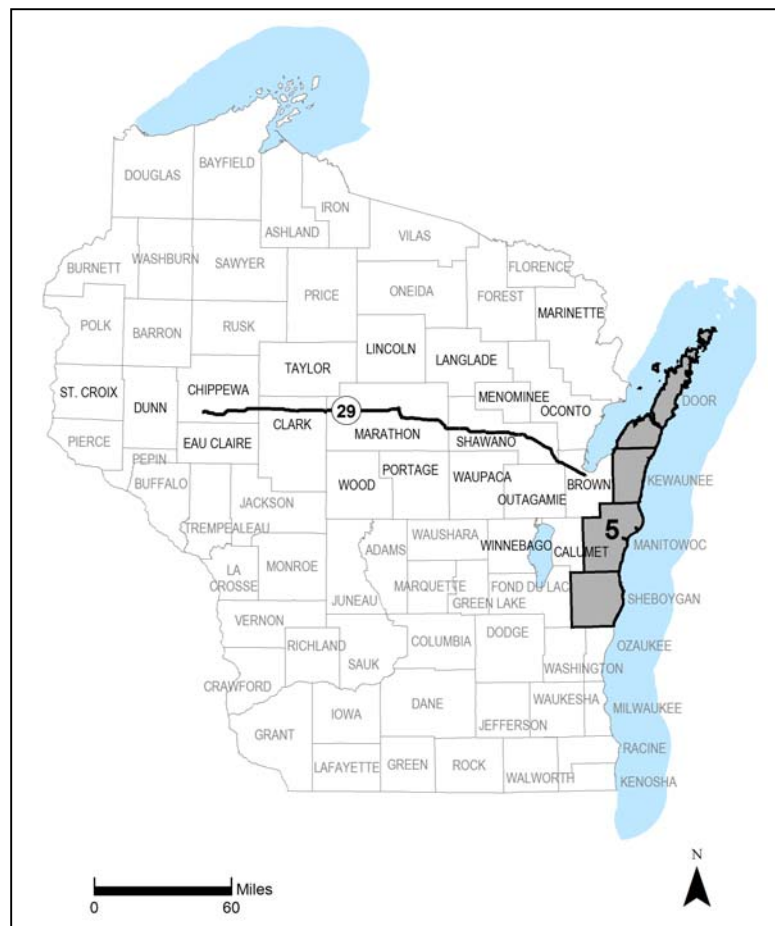
as a result of the highway improvements. The current forecast estimates an increase of 30% over the period. In 2020, there will be an estimated 36 new jobs in the region. The jobs will be in the Retail, Paper Manufacturing, and Machinery & Computers sectors.

As with the other economic indicators in this region, the original 1986 estimate of the sum of change in disposable personal income due to truck cost savings was not very different from

the current forecast. The original forecast estimated the total change to amount to \$43 million by 2020, and the current estimate is a total change of about \$53 million by 2020. From the available data, it now appears that this analysis region is not as strongly affected by the transportation cost savings from the Highway 29 improvements, as are the more western analysis zones.

## Lakeshore Zone

**Figure 11**  
**Lakeshore Zone**



Of all the five analyzed zones, only the Lakeshore Zone, shown above in Figure 11, does not actually contain portions of the

improved Highway 29. The original forecast for output in 2020 in the Lakeshore Zone estimated

that output would grow by 68% between 1990 and 2020. The current forecast estimates output growth at 228% over the same period. The original forecast for 1990 was very close to actual output that year, but diverges sharply from the actual trend by year 2000. The current economic model forecasts that the Durable and Non-Durable Manufacturing sectors will drive output growth over the analysis period.

The original study estimated that the total change in regional output in 2020 due to truck cost savings from the highway improvements would be \$14.8 million. The current estimate for change in regional output in 2020 due to the improvements is nearly \$26 million. The majority of the cost savings will accrue to four sectors: Machinery & Computers, Rubber & Plastics Manufacturing, Food Manufacturing, and Fabricated Metals. These industries are all in the Durable and Non-Durable Manufacturing sectors, which are predicted to be the main drivers of economic growth over the analysis period.

Employment in the Lakeshore Zone was originally forecast to increase by only 9% between 1990 and 2020, with 80 jobs being added in 2020 due to business expansions resulting from trucking cost savings. The current forecast estimates that employment in the region will grow by 26% over the analysis period. By 2020, nearly 90 new jobs will exist as a result of transportation cost savings to businesses. Those jobs will be concentrated in the industry sectors of Rubber & Plastics Manufacturing, Machinery & Computers Manufacturing, and Retail.

The total change in disposable personal income in this region, resulting from transportation cost savings was originally estimated to be \$101 million between 1990 and 2020. The current estimate is a total change of \$64 between 2001 and 2020.

## **Rest of the State**

Outside the five analysis zones, the original study forecast output in the rest of the state to increase by 80% in inflation-adjusted terms between 1990 and 2020, including the effects of truck cost savings due to highway improvements. Those effects were estimated to be \$8 million in year 2020. Current model forecasts, however, estimate output in the rest of the state to increase by over 200% over the same period. The two forecasts are similar up to 1990 but diverge after that. The current estimates forecast that nearly all the incremental output gains will be in four of the strongest growing industries in the state: Electrical Equipment, Miscellaneous Business Services, Real Estate, and Wholesale Trade.

In 1986, employment in the rest of the state, outside the analysis regions, was forecast to increase by 18%. The forecast also estimated that 46 new jobs would be created outside the analysis regions as a result of the highway improvements. The current forecast estimates employment growth between 1990 and 2020 to be 33%. However, the current forecast estimates that there will be only 29 new jobs in 2020 as a result of the Highway 29 improvements. The new jobs will be distributed across the various professional services sectors (Business Services and Professional Services).

As with the Lakeshore Zone estimates, the total change in disposable personal income in the rest of the state, resulting from transportation cost savings and originally forecast in 1986 is not much different from the current forecast. The original estimate was a total of \$58 million by 2020. The current estimate is a total change of \$64 million by 2020, but this does not include personal income changes for the decade between 1990 and 2000. Taking that decade into account would probably place the total personal income change due to transportation cost savings very close to the original estimate.

The estimated changes in output, employment, and personal income over the analysis period are summarized in the following three tables.

**Table 10**  
**Total Change in Year 2020 Business Output**  
**Due to Transportation Cost Savings**  
**(millions of 1996 dollars)**

	2020 Change Predicted in 1989	2020 Change predicted now
West Zone	\$17.5	\$171.0
Central Zone	\$20.0	\$78.0
N.E. Zone	\$20.0	\$113.0
Fox Valley Zone	\$7.0	\$15.8
Lakeshore Zone	\$14.8	\$25.9
Rest of State	\$8.0	\$7.6
<b>Total State Impact</b>	<b>\$87.6</b>	<b>\$412.0</b>

Sources: REMI, *Highway 29/45/10 Corridor Study*, Cambridge Systematics, Inc., 1989.

**Table 11**  
**Total Change in Year 2020 Employment**  
**Due to Transportation Cost Savings**

	2020 Change Predicted in 1989	2020 Change predicted now
West Zone	92	1,116
Central Zone	114	520
N.E. Zone	108	612
Fox Valley Zone	34	36
Lakeshore Zone	80	87
Rest of State	46	29
<b>Total State Impact</b>	<b>474</b>	<b>2,400</b>

Sources: REMI, *Highway 29/45/10 Corridor Study*, Cambridge Systematics, Inc., 1989.

**Table 12**  
**Sum of Change in Disposable Personal Income**  
**1990-2020**  
**Due to Transportation Cost Savings**  
**(millions of 1996 dollars)**

	1990-2020 Change Predicted in 1989	2001-2020 Change predicted now
West Zone	\$117.0	\$587.0
Central Zone	\$145.0	\$311.7
N.E. Zone	\$137.4	\$351.0
Fox Valley Zone	\$43.0	\$52.9
Lakeshore Zone	\$101.0	\$64.0
Rest of State	\$58.0	\$64.0
<b>Total State Impact</b>	<b>\$602.0</b>	<b>\$1,431.0</b>

Sources: REMI, *Highway 29/45/10 Corridor Study*, Cambridge Systematics, Inc., 1989.

## Findings and Conclusions

### Community Economic Impacts

1. According to interviews with local officials, the Highway 29 improvements had a positive overall impact on the communities along it. Many local business leaders similarly expressed that the highway capacity improvement enabled faster travel times, improved access to the expressway via the new interchanges, and improved safety conditions for truckers and the general population.
2. The highway improvement has spurred an interest in economic development in the communities along the corridor. Increased planning efforts resulted in numerous plans for commercial and industrial development in some communities. Many communities already have, or are currently in the process of upgrading their utilities (sewer and water systems) in anticipation of attracting development to the region. The "Highway 29 Partnership", a coalition of five smaller communities was created with the goal of working together on common economic development initiatives.
3. With the expansion of Highway 29 to four lanes, workers are choosing to travel longer distances to regional urban areas such as Chippewa Falls, Medford, Eau Claire, Marshfield, or Wausau, all of which offer a wider array of employment opportunities. The Wisconsin Rural Partnership Community Resource Team's Report assessed the strengths and weakness of five communities along Highway 29 and found that "commutes of 1 to 1½ hours are not uncommon". In fact, the

ease of travel along Highway 29 has allowed households with multiple income earners to work in different urban centers and reside in smaller communities along the corridor, between the urban centers.

4. As expected, many new highway-oriented businesses have located near the interchanges of the improved four-lane highway corridor. Communities have experienced the first wave of development with increased numbers of motels, restaurants, and service stations along the highway. The Wisconsin Rural Partnership Community Resource Team noted that it was important to place “attractive and useful businesses and services at and around the Highway 29 exits”.<sup>18</sup> The Resource Team also recommended that communities consider attractive and informative directional signs to encourage travelers to venture off the beaten path to experience the retail, recreational, historic and cultural delights of the area.

## **Business Impacts**

1. With shifts in traffic patterns, the highway expansion project has had varying impacts on downtown businesses. While some downtown businesses continue to have the same customer base, others are losing customers to businesses in larger communities that are within commuting distance. On the other hand, some businesses are attracting new customers traveling on Highway 29.

The new bypasses have created business opportunities for more development along the access points in the communities and also reduced traffic levels, mainly of trucks traveling in the downtown areas.

2. Manufacturers, food processors, and transportation service providers indicated that the highway improvement reduced travel times and improved the reliability of product delivery. Improved safety, reduction in congestion, and lower freight charges for deliveries were the most frequently mentioned benefits. When asked whether the highway improvement helped businesses increase their ability to reach other markets, the majority of the interviewed businesses indicated that it was too soon to tell because the highway was just completed in the previous year.
3. Several communities pointed out in the interviews that rural businesses are not able to offer the wage and benefit packages common to larger corporations located in nearby urban areas. The expanded four-lane highway has enabled workers to commute over longer distances to regional and urban areas such as Chippewa Falls, Medford, Eau Claire, Marshfield, and Wausau, where the better wages and benefits are offered. In addition to shorter commuting times, the expanded commuter-shed also resulted in improved labor availability for businesses hiring new workers.
4. Analyzed business counts for 1995 and 2003, obtained from business directories, indicated a significant increase in the number of new businesses along Highway 29, approximately 55% during this time period. In comparison, along the two-lane Highway 10 there was a much lower, 17% increase in the number of establishments over the same time-period.
5. The most significant finding in terms of business impacts was the number of new and expanded manufacturing plants that located along the four-lane highway during the past 12 years. One



hundred fifty one new or expanded manufacturing plants located within 5 miles of the improved four-lane highway, creating over 6,200 new jobs. A higher number of manufacturing plants (186) but fewer jobs (5,501) were created near the two-lane highway.

## **Other Impacts**

1. During 1990-2000, population in communities along the four-lane Highway 29 and two-lane Highway 10 grew by 11% and 12%, respectively. This growth was slightly above the 9% population growth rate for the entire state. However, interview results from local officials reveal an anticipation of new housing starts in the near future. In many of the communities surrounding the City of Stanley's new prison, for example, residential development is being emphasized economically.
2. Highway 29 is viewed by the tourism sector as the gateway to many recreational locations in northern Wisconsin and Door County. A comparison of tourism expenditures along the improved four-lane highway and the existing two-lane highway revealed slightly higher tourism spending levels along the four-lane highway. Total annual increases in tourism spending over a 10-year period were similar along the two corridors, varying from year to year by at most 22%. The higher expenditure levels along the four-lane corridor may be attributed to more highway-oriented businesses locating in communities along Highway 29 and to increases in traffic volumes.
3. Interviews with local property tax assessors indicate an increase in the values of properties sold near the expanded highway. In some cases, the property values increased substantially depending on the type of development. In Phase II of the study, cumulative equalized property values from the Wisconsin Department of Revenue for communities along the four-lane highway were compared to equalized property values along the two-lane highway and to statewide averages. Results show that from 1998 to 2003, Highway 29 corridor cumulative equalized property values grew at a higher rate (40%) than did the Highway 10 communities (38%), with both growing less than the statewide total (45%).<sup>19</sup> This difference is more indicative of the economy of central Wisconsin in general than of the highway expansion.
4. From 1996 to 2001, total employment along the Highway 29 corridor increased by 11.3%, exceeding the statewide job growth rate of 8.7% during the same period.

## **Lessons Learned**

WisDOTs' Economic Planning & Development Section, responsible for this study, has, for many years estimated the economic impacts of transportation projects using computer models of the Wisconsin economy together with GIS software and statewide business databases. WisDOT has also maintained strong working relationships with other State agencies that have provided some of the data used in this study. The Section has relied on community and business interviews and surveys to obtain anecdotal information regarding the effects of anticipated and past transportation projects.

Internal WisDOT as well U.S. Census data were available for this study, but while researchers also wished to compare retail sales patterns for the businesses along the study and control corridors, this information was not available.

Throughout the research, challenges occasionally arose in data gathering. Historic data on businesses along the study and control corridors was not available for years prior to 1995, for example. It will be important, for future economic studies of Highway 29 and other transportation corridors, to ensure the availability and usability of historic business data and statistics.

In addition, analyzing, customizing, and displaying available data was at times very time-consuming for both the full-time and the half-time employee working on the study. Finally, internal WisDOT and Advisory Committee review of the study's draft also took significant time periods.

## Community Profiles

Profiles of interviewed communities follow in alphabetical order by name.

Community	Population 2000
Curtiss	225
Hatley	476
Withee	506
Boyd	679
Owen	936
Town of Maple Grove	1,045
Wittenberg	1,177
Cadott	1,328
Edgar	1,386
Ringle	1,408
Bonduel	1,416
Thorp	1,536
Colby	1,616
Town of Angelica	1,635
Marathon City	1,640
Town of Washington	1,903
Abbotsford	1,956
Stanley	2,000
Schofield	2,117
Town of Oneida	4,001
Rothschild	4,981
Hobart	5,090
Rib Mountain	7,556
Shawano	8,298
Weston	12,079
Chippewa Falls	12,925
Howard	13,546
Wausau	38,426
Green Bay	102,313
Town of Pittsfield	Information not available
Oneida Nation	Information not available



## **Abbotsford**

### **Clark and Marathon Counties**

**Population:** 1,956

**Highway 29 expansion completed:** November 1999

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*Located off the new Highway 29 bypass, Abbotsford is surrounded by many dairy farms and cheese factories. Local entertainment includes skiing, snowmobiling, a movie theatre, and various community activities. Interviewed: Director of Public Works.*

### **Community Perception of the Highway Improvement**

The City of Abbotsford expressed a variety of concerns regarding the highway expansion project. The majority of the concerns were business-related because of the community's emphasis on maintaining a viable economy.

Access into Abbotsford was very important and there was concern about the location of the access routes into the community. As a result, three routes into Abbotsford were built and the



A new travel plaza located on the recently annexed land in Abbotsford, June 2002.

community was satisfied with the outcome. There was also concern about the alignment of the highway bypass. The City of Abbotsford preferred to locate one of the interchanges north of the existing Highway 29 corridor because the exit ramps would be within the city limits. However, a decision was reached to place the

bypass on the south side of Highway 29, between the communities of Abbotsford and Colby. This location of the bypass was not within the municipal boundaries of either Abbotsford or Colby, resulting in annexation concerns over the land.

Both Colby and Abbotsford wanted to annex the property near the bypass for economic development. The alignment of the bypass was finalized after many meetings and discussions between the two communities. Land use concerns were resolved when approximately 50% of the land in the southeast quadrant was annexed by the City of Abbotsford and the other half was annexed by the City of Colby. The interchange provided access to both properties.

Currently, the remaining southwest quadrant of property near the interchange has not been annexed by either municipality. If Abbotsford annexes the land, it is most likely to become a mix of residential and industrial uses. Both cities agreed to meet to discuss annexation issues in the near future.

Although negotiations with other municipalities have been difficult at times, Abbotsford stressed the importance of working together with all involved parties, including the City of Colby, Chamber of Commerce, and the school district to create a cooperative plan.

## Current Development

The first step toward development in Abbotsford was the annexation of land near the bypass into the city limits. Shortly after the annexation, the community began to see development. A convenience store (which includes a McDonalds, a gas station, and a car wash) located on the north side of the bypass. Sleep Inn motel and a truck stop located on the south side of the bypass.

Badger State Western, a transport company, expanded near the west interchange because it provided good access to Highway 29. Badger State Western's original building is still in use and is located south of the Abbotsford bypass.

Northwest Trucks is located in the northeast quadrant of the bypass. The company has recently expanded and plans to increase its business exposure by purchasing additional signage along the bypass.

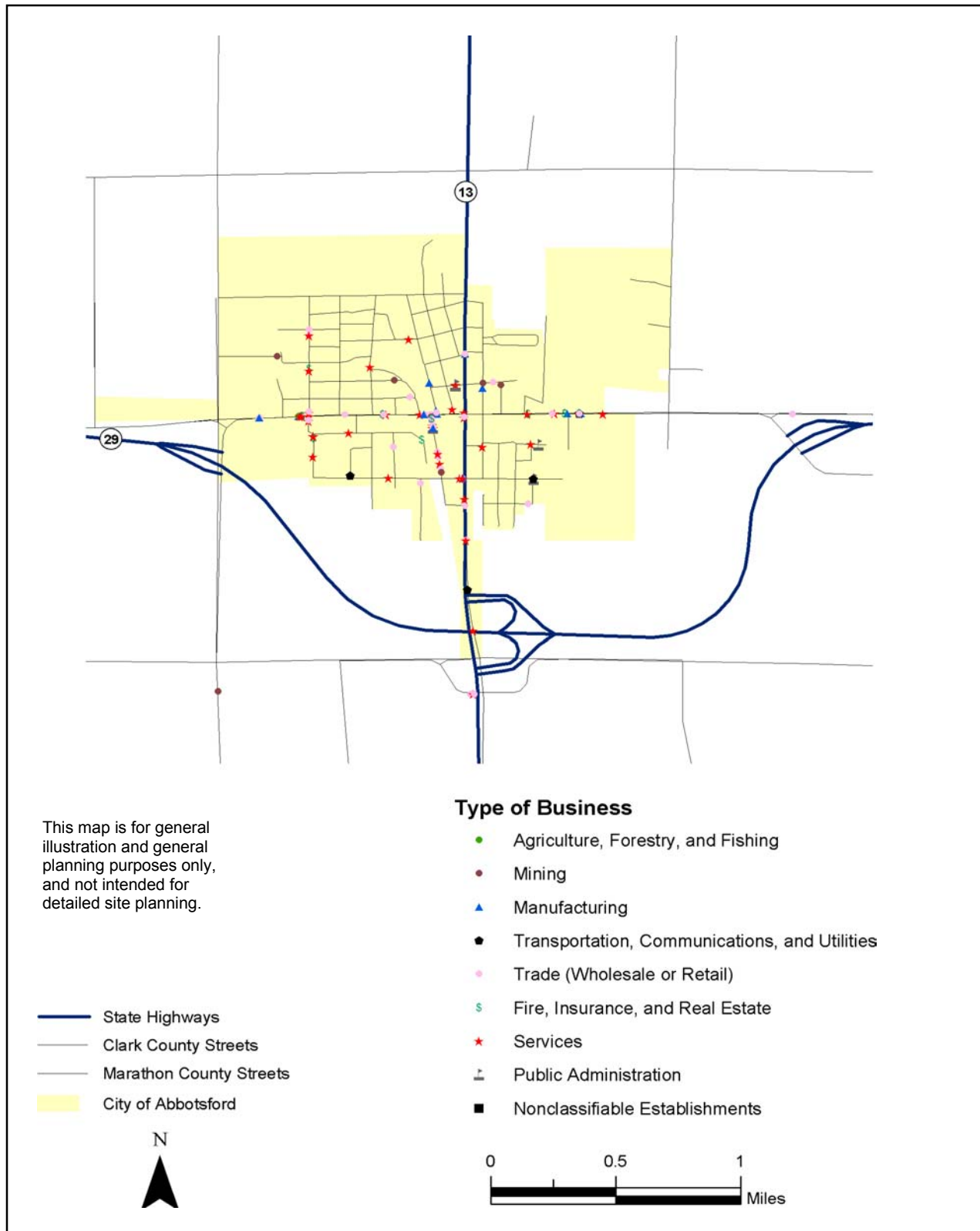
Local officials attribute these developments to the improved safety, speed, and convenience of the highway bypass and expansion project. The convenience store location was directly related to the increases in traffic generated by the highway expansion.



McDonalds and this gas station have located near the Abbotsford bypass, June 2002.

The City of Abbotsford has upgraded its entire water and sewer systems. One factor in the upgrading the municipal water systems was the highway expansion's potential to help spur future economic development. The City took a proactive approach in planning for the impacts of the highway improvement. Figure 12, on the following page illustrates Abbotsford's establishments by business type.

**Figure 12**  
**City of Abbotsford Businesses**



This map shows a cluster of businesses all through Abbotsford and near the STH 13/29 interchange, June 2002.

## **Proposed Development**

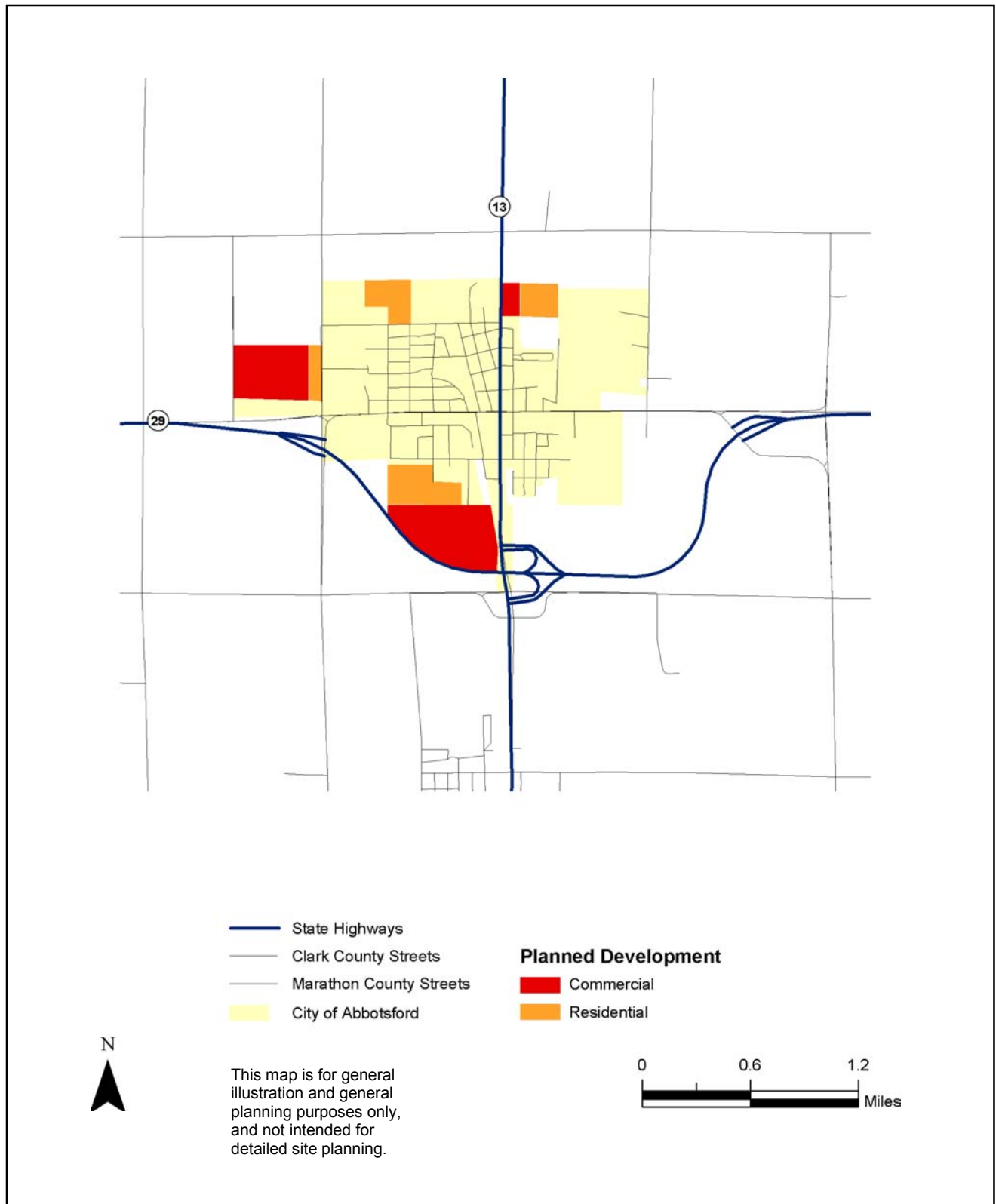
Although an official land use plan for Abbotsford has not been adopted, City officials have already agreed on the plan's basic elements. The west and north boundaries of Abbotsford will become residential, and the east and south side of Abbotsford will be reserved for commercial development. Existing land-use south of the planned residential development (along and near the bypass) has yet to be determined.

Residential development is also planned at the north end of the city, directly along the east side of State Trunk Highway 13. Behind the residential development, the City also has plans for commercial or industrial development. With more traffic on STH 13 leading to Medford, the City believes this area is another prime location for development.

Abbotsford has always been a bedroom community for people working in and near Wausau, Medford, and Marshfield. With the increased speed limit and faster travel times, more people are willing to live in Abbotsford and commute daily (a 30-minute drive) to other work sites. In response to the demand for housing Abbotsford has developed more residential lots. Currently, there is an existing 28-lot development in the northwest corner of the city. If needed, this residential area can be expanded to 54 lots. Other areas are planned for residential development but the land has not been acquired at this time.

It is important to note that Abbotsford has not formally designated specific land use for commercial, industrial, and manufacturing development in its planning process. The community feels that this will provide it with flexibility in offering more locations for commercial or manufacturing facilities. The following map illustrates planned land use in Abbotsford.

**Figure 13**  
**City of Abbotsford**  
**Planned Land Use**



Map showing relatively large areas planned for commercial and residential development near the Highway 29 interchange, June 2002.



## Property Values

The property along the corridor has increased in value. The increase has been very similar to that in Colby, where property close to the bypass has increased in value faster than property further away from the corridor. Since only a few parcels have been sold along the highway, it is difficult to assess how properties in the long term may have been impacted by the highway improvement. However, property assessors estimate the current property value for the Sleep Inn Motel to be \$2.5 million. The assessor also speculated that the value of some parcels north and south of Highway 29 could be as high as \$3 per square foot.



Sleep Inn is located on the south side of the bypass, June 2002.

## Additional Comments

The highway improvement has attracted interest from several large-scale light industrial companies. Before the highway expansion, the community received one or two inquiries about industrial development on an annual basis. With completion of the highway improvements, prospects and interest for industrial development have nearly doubled.

There were a few negative economic impacts related to the highway improvement. Two highway-oriented businesses, Mr. B's (a convenience store, restaurant, and gas station), located on old Highway 29, and Petro Pantry, a

convenience store located at the intersection along Highway 29, had gone out of business.

Although Abbotsford lost a few businesses during the highway construction period, the highway expansion has created many more economic opportunities for the community, as previously mentioned.



## **Angelica** **Shawano County**

**Population:** 1,635

**Highway 29 expansion completed:** November 1996

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*Located half way between Shawano and Green Bay, Angelica has a healthy mix of farmland and single-family residential development. Interviewed: Town Supervisor, Town Clerk, and Planning Committee Chairman.*

### **Community Perception of the Highway Improvement**

Angelica's biggest concern was whether the new four-lane highway was going to be located on the southwest or the northeast side of the present highway when the new highway bypasses the community.



This convenience store off Spruce Road has at-grade access to Highway 29, July 2003.

### **Current Development**

One new business, the Amoco 29 Travel Mart, located near the intersection of the new Highway 29 and Spruce Road. From 1996 to 2003 there were between 10-23 housing starts annually.

The construction of new homes in the town of Angelica increased because of the decreased commuting time enabled by the new four-lane Highway 29, both east to Green Bay and west to

Shawano. Figure 14 on the following page illustrates the location of businesses in the Town of Angelica.

### **Proposed Development**

In October 1996, a Town Planning Committee was formed, and a *Shawano County Eastern Cluster Land Management Plan* was adopted in 1997 by the Angelica Town Board. There was a belief that there would be an influx of people wanting to build homes in the town because of the new four-lane highway. One of the major results of the *Land Management Plan* was the incorporation of a new zoning classification, the A-290 Agricultural Residential Zone, into the county zoning ordinance.

The A-290 Agricultural Residential Zone requires that lot size be two acres or more, that the home be set within 290 feet of the road right-of-way, and that the lot have 290 feet of

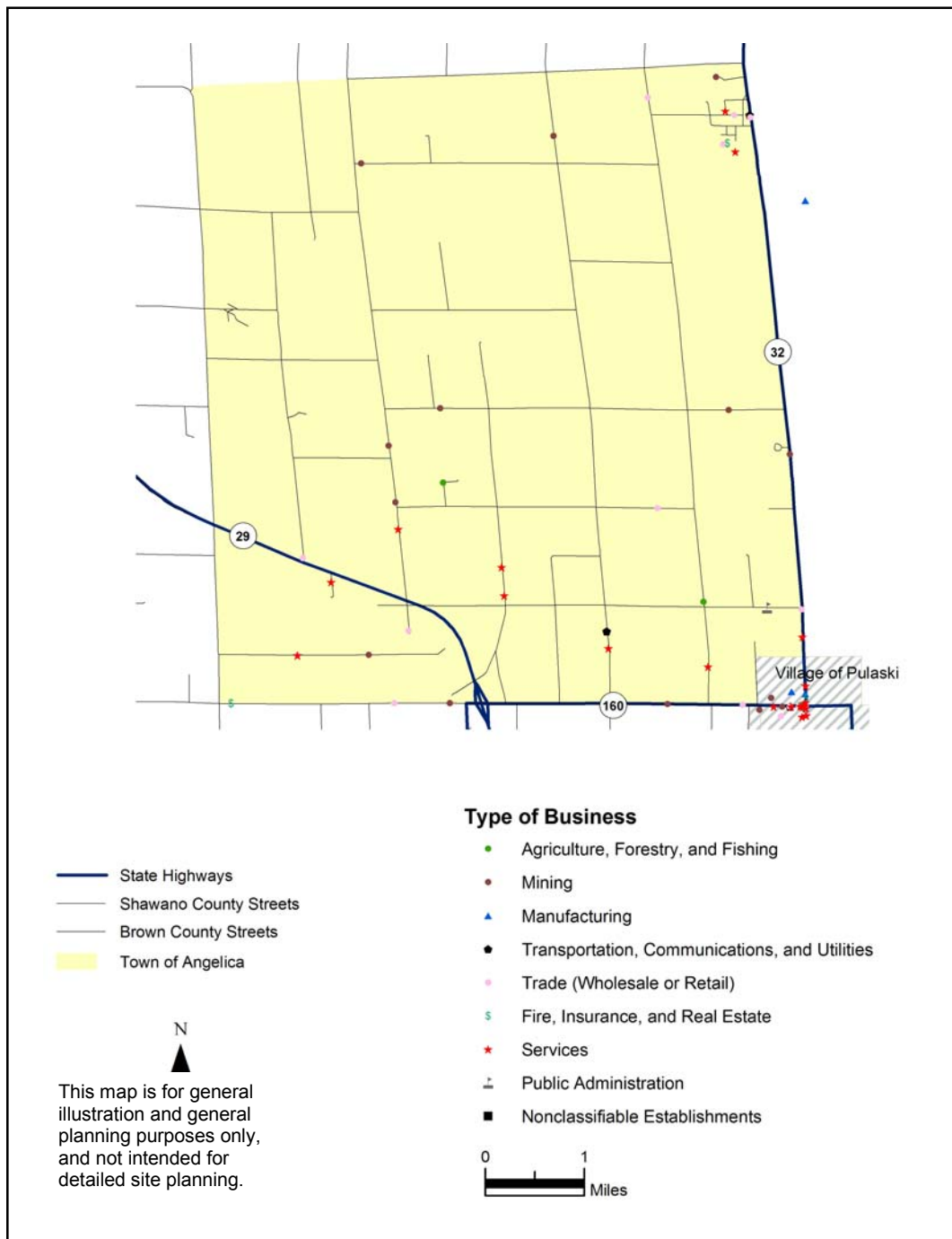


Bob's Country Club has lost some business since Highway 29 has bypassed the Town of Angelica. The restaurant now relies on local customers, July 2003.

frontage on an existing road. Lots larger than 35 acres are therefore required to have the 290 feet of frontage on an existing road, but the home could be placed anywhere on the lot. This zoning prevented developers from platting out numerous lots on 40, 60, or 80 acres of land and

resulted in individuals purchasing individual lots for building throughout the town. Figure 15 on the following page illustrates planned development, by type, in the Town of Angelica.

**Figure 14**  
**Town of Angelica Businesses**



Angelica's approximately 50 businesses, shown on this map, are predominantly in the agriculture, trade, and service sectors, July 2003.

## Property Values

Property values are generally consistent throughout Angelica, where residential lots sell for \$5,000- \$8,000/acre and farmland sells for \$1,200 - \$1,500/acre. The most evident change in development was the increase in housing starts within 2-3 miles of the highway.

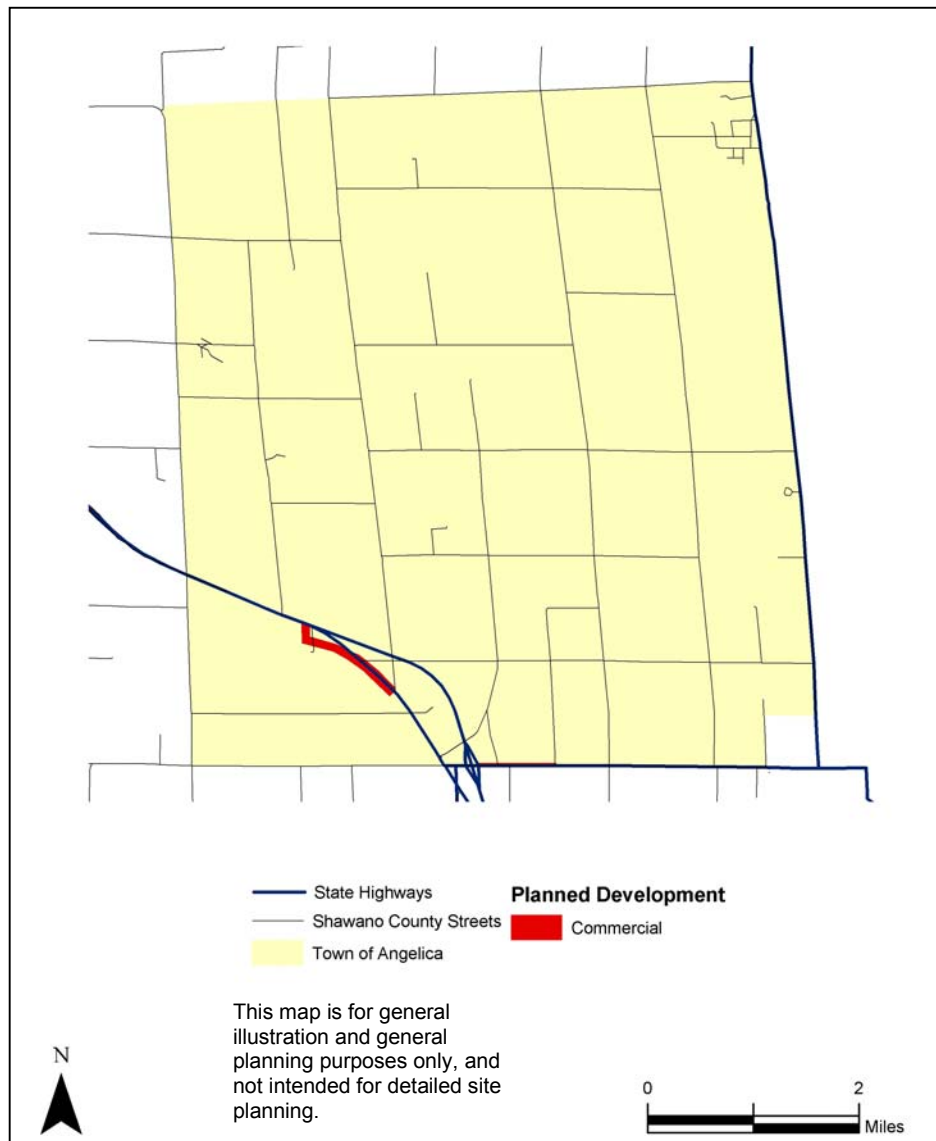
## Additional Comments

Bypassing the unincorporated Town of Angelica

with the new highway had some impact on area taverns, the main type of business in the area, outside of Van Lannen Roofing and Wilcox Auto Body.

It is questionable whether the closings of two taverns in Angelica were caused by lack of business due to a change in traffic patterns or a general decline due to stricter drinking/driving laws.

**Figure 15**  
**Town of Angelica**  
**Planned Land Use**



Future commercial development in the Town of Angelica is anticipated south of STH 29, along the northern part of Spruce Rd., July 2003.



## **Bonduel** **Shawano County**

**Population:** 1,416

**Highway 29 expansion completed:** 1998

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*The Village of Bonduel is located 20 minutes west of Green Bay, at the crossroads of Highways 29, 47, and 117. Bonduel celebrates the Fourth of July, and Founders' Day in September, when the village celebrates its local culture and active downtown businesses with arts, crafts, and strong ties with the nearby Amish community. Interviewed: Village Clerk-Treasurer, Director of Municipal Operations.*

### **Community Perception of the Highway Improvement**

There were concerns that the downtown would be hurt by the removal of traffic from the area. At the same time, there were residents who were glad that the expanded highway (a south bypass) would relieve the village of some traffic volume and loud noise.

### **Current Development**

The following development occurred in the village before, during, and after the highway's construction:

#### Commercial:

Bonduel City Express (a convenience store, restaurant, and bank)  
Bonduel carwash  
Burger King

#### Manufacturers:

Excel Pattern  
Rosin Woodworks  
Bonduel Sand and Gravel  
North Country Homes (manufactured homes)

#### Housing:

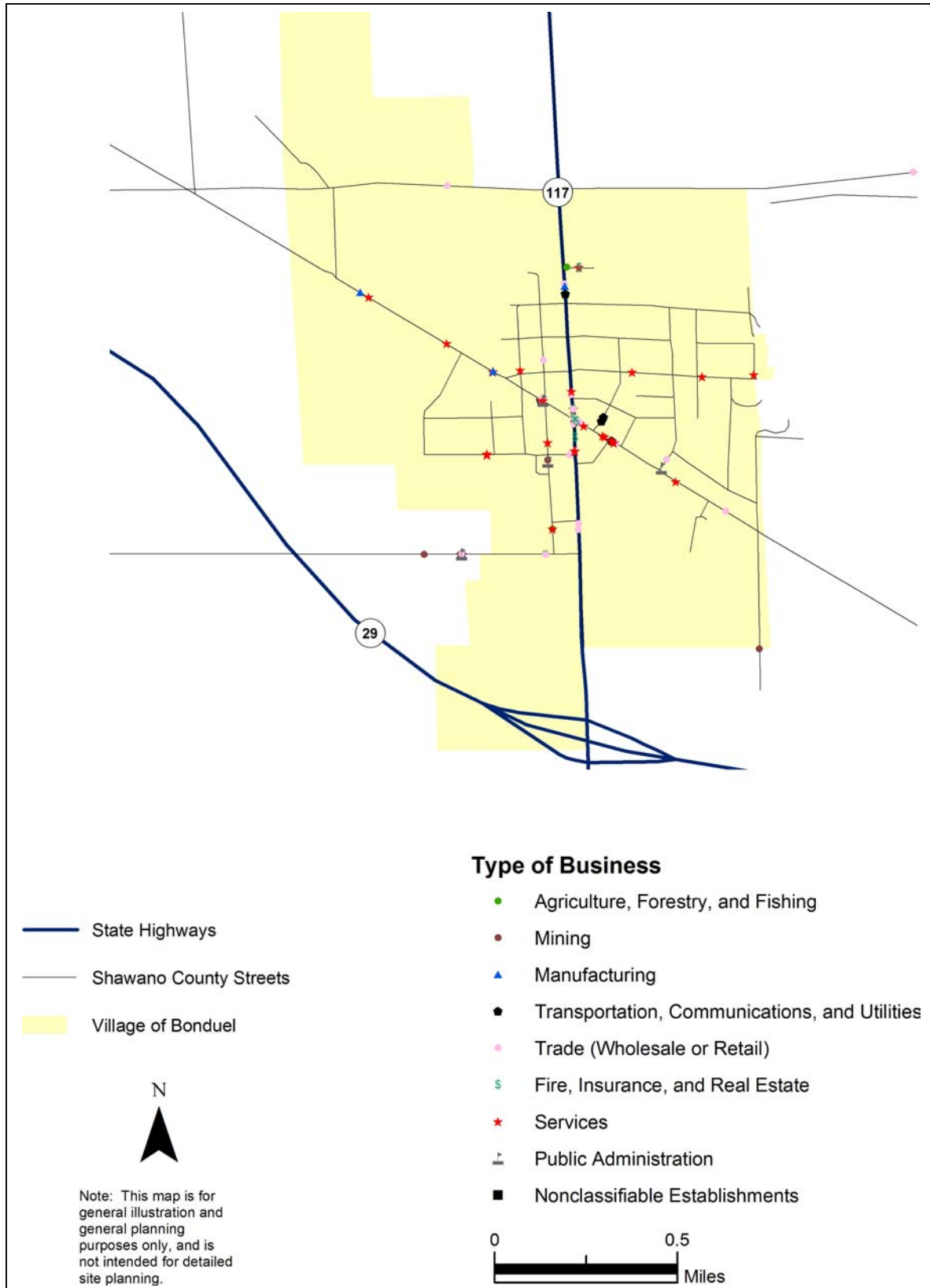
Several duplexes have been built within the past several years. The Village has also just annexed 60 acres south of STH 29/47. This area will be developed for residential and light commercial use and is currently marketed to people interested in living in Bonduel and working in Green Bay.

The commercial businesses listed above were definitely related to the Highway expansion, because they need the exposure that the highway provides. The manufacturers among these businesses do not necessarily need the direct exposure but do require the improved convenience and facilitated access of Highway 29. Figure 16 illustrates the location of various types of businesses in Bonduel.



North Country Homes, a manufactured homes builder, located in Bonduel after the highway expansion, April 2003.

**Figure 16**  
**Village of Bonduel Businesses**



The locations and types of Bonduel's approximately 170 businesses are shown in this map, April 2003.



## **Proposed Development**

The Village has created and installed all needed sewer, water, curb, gutter, and storm water improvements in the Bonduel Business Park. The Village is also considering an expansion of the park.

The Bonduel Plan Commission will be working on a Smart Growth plan beginning in 2003. This Plan will encompass the southern part of the village, an area that surrounds Highway 29. These planning efforts took place due to both the Smart Growth movement and development in the southwest corner of the STH 29/117 interchange. Figure 17 illustrates planned development in the Village.

## **Economic Impact of the Highway Improvement**

Highway 29 has changed the perception of the community. With the advent of the expanded highway, Bonduel has been transformed from a retirement to a bedroom community for workers in the Green bay area. The median age for residents is 33, down from 37 before the highway expansion. In addition, after the highway construction, downtown Bonduel establishments have changed to mostly specialty and antique shops. Finally, the expanded highway has opened the south end of the village for development, which would not have happened without the expansion.

There were, however, some negative effects from the highway expansion. A gas station at the intersection of 1<sup>st</sup> Street and Green Bay Street went out of business for a combination of reasons, including, but not solely due to the highway expansion. In addition, some of the existing commercial businesses no longer have the direct exposure to traffic that they did when the highway was routed through the downtown. Finally, the Highway 29 bypass is used by many people for north-south access, a trend that generates high volumes of traffic in the village on weekends.

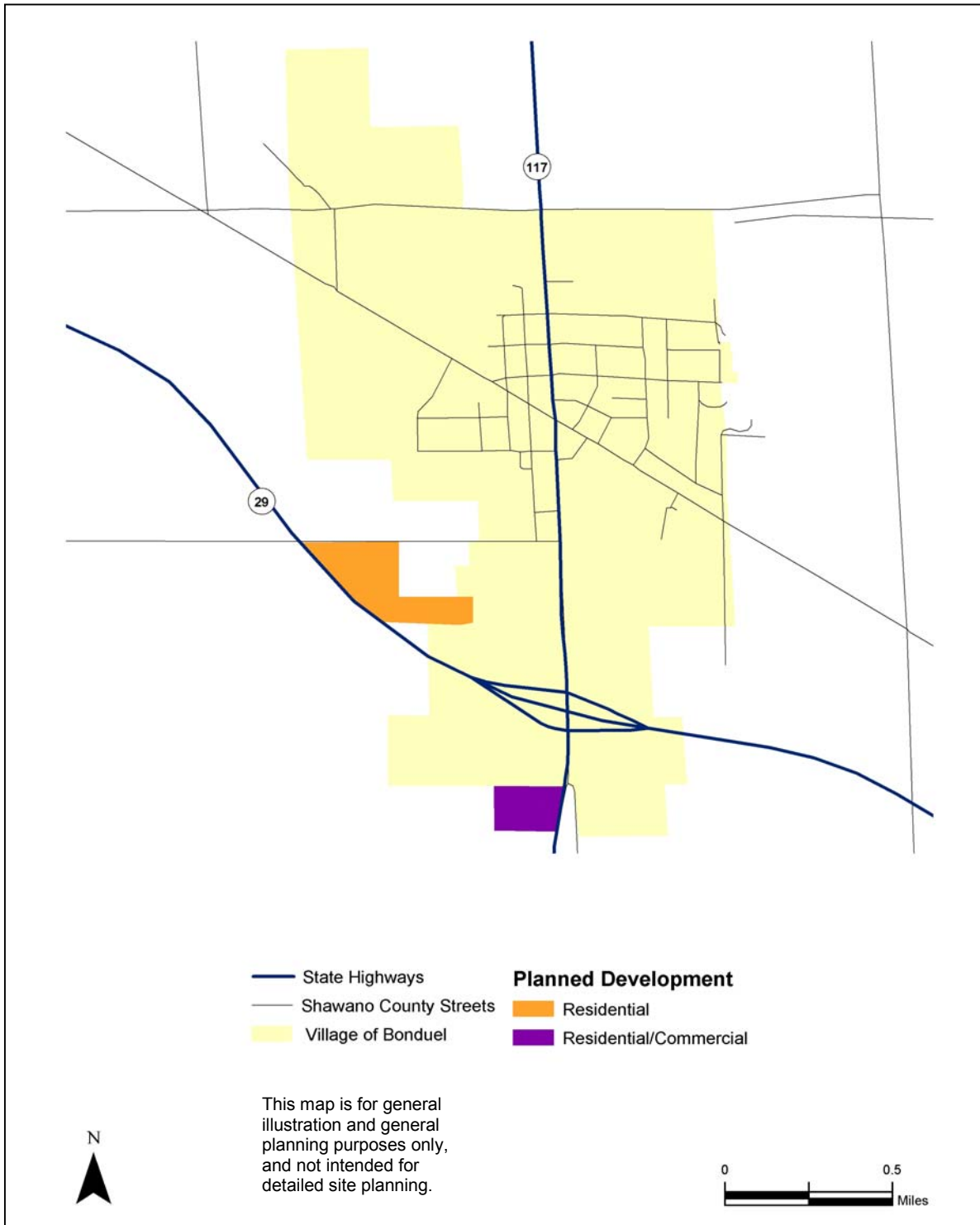
## **Property Values**

Property along the highway has sold for \$30,000-\$125,000 an acre, and is now desired for commercial and residential use. Before the highway expansion, these properties were agricultural and worth approximately \$1,000-\$1,500 an acre.



Bonduel Express, containing a convenience store, gas station, and restaurant established along the new highway due to the good access and visibility it provides, April 2003.

**Figure 17**  
**Village of Bonduel**  
**Planned Land Use**



Future residential and mixed residential/commercial land use is illustrated in this map, April 2003.





## **Boyd** **Chippewa County**

**Population:** 679

**Highway 29 expansion completed:** 1994

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*Located at the interchange of Highway 29 and County Road D, the Village of Boyd has preserved its visitor friendly atmosphere while providing recreational and heritage events for its residents. With baseball leagues for all ages and an annual Community Corn feed event, Boyd finds a way to make everyone feel like a part of the community. Interviewed: Village President, Village Clerk.*

### **Community Perception of the Highway Improvement**

There was positive anticipation about the possible growth the expanded highway would bring into the Village of Boyd. The village did not have any negative concerns regarding the highway expansion. The only concern was about the safety of travel on Highway 29 before it was converted to four lanes.



Flags line the street of Boyd's small, yet charming downtown, May 2002.



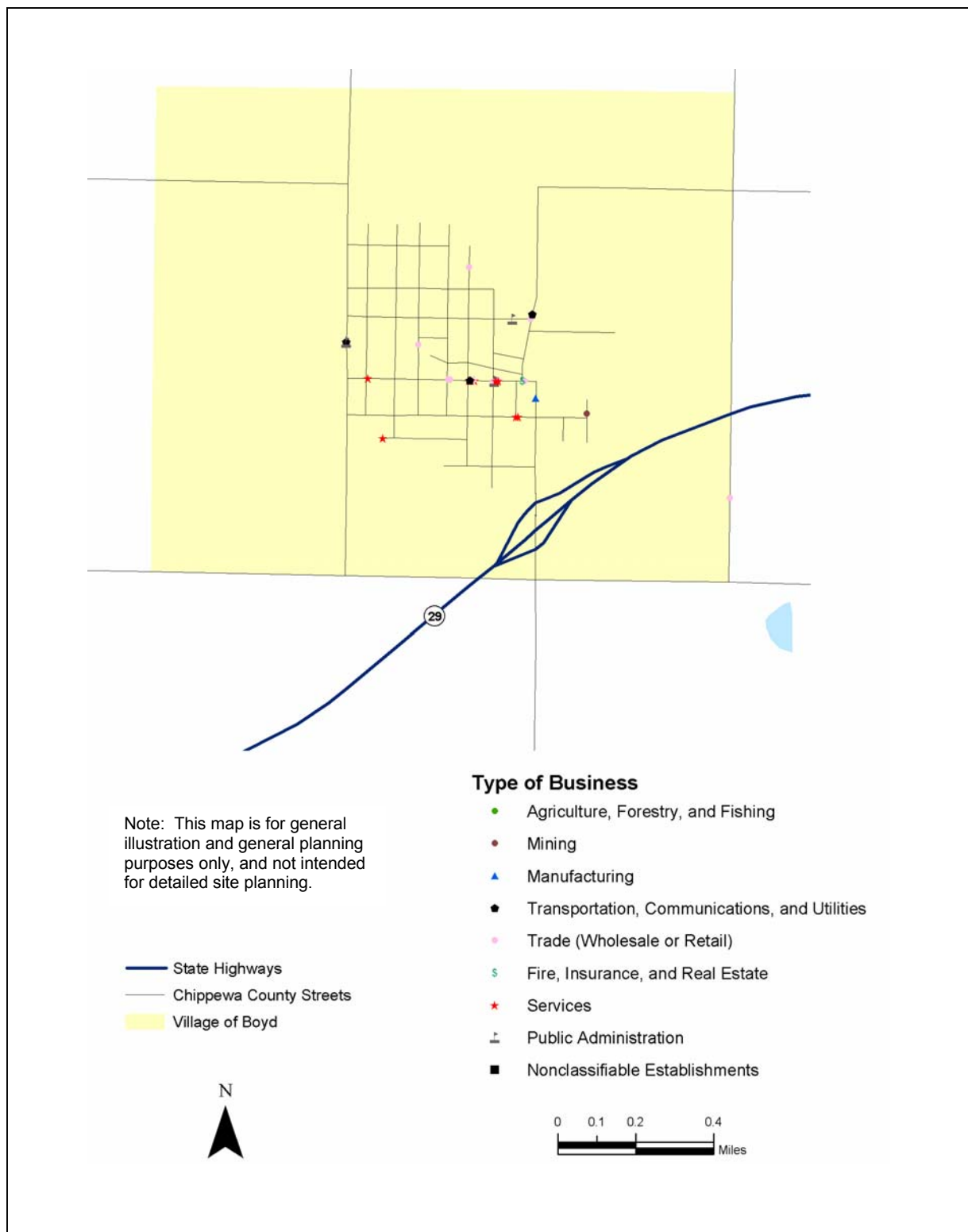
These recently constructed homes are located by Boyd's new interchange, May 2002.

### **Current Development**

Eight new houses were recently built in Boyd. In 2001 a beauty salon and a crafts and flower shop were also established in the village. These businesses located in Boyd partly because of the expanded Highway 29 and the ease of access to and from other parts of the state.

The following map illustrates the business types in Boyd.

**Figure 18**  
**Village of Boyd Businesses**



Map showing businesses throughout the village, with none yet at the Highway 29 interchange, May 2002.

**Proposed Development**

There is no proposed development in Boyd at this time, however, the highway improvement has increased interest among housing developers. The village's proximity to Chippewa Falls and new development anticipated in nearby Stanley have probably increased interest in housing development.

**Property Values**

According to the assessor and municipal leaders, the property values along the corridor have increased by approximately 40%.



## **Cadott** **Chippewa County**

**Population:** 1,328

**Highway 29 expansion completed:** 1994

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*Located north of the Highway 29 and Highway 27 interchange, the Village of Cadott is best known as the “Half-Way Point between the Equator and the North Pole”. Music enthusiasts appreciate the village for its annual music festivals, Rock Fest and Country Fest. Cadott can also be remembered for its small-town feel and social energy. Interviewed: Village Clerk, Director of Public Works.*

### **Community Perception of the Highway Improvement**

When Highway 29 was expanded, local roads that previously intersected the highway were converted into cul-de-sacs. Farmers complained

- Geometric Tool & Die Inc.
- River Country (a gas station)
- Citizens State Bank
- Kangaroo Korner (a daycare establishment)
- A spec building (a skeleton building, ready for development)



Cadott is famous for its unique geographic location, May 2002.

The following map illustrates the types of businesses located in Cadott.

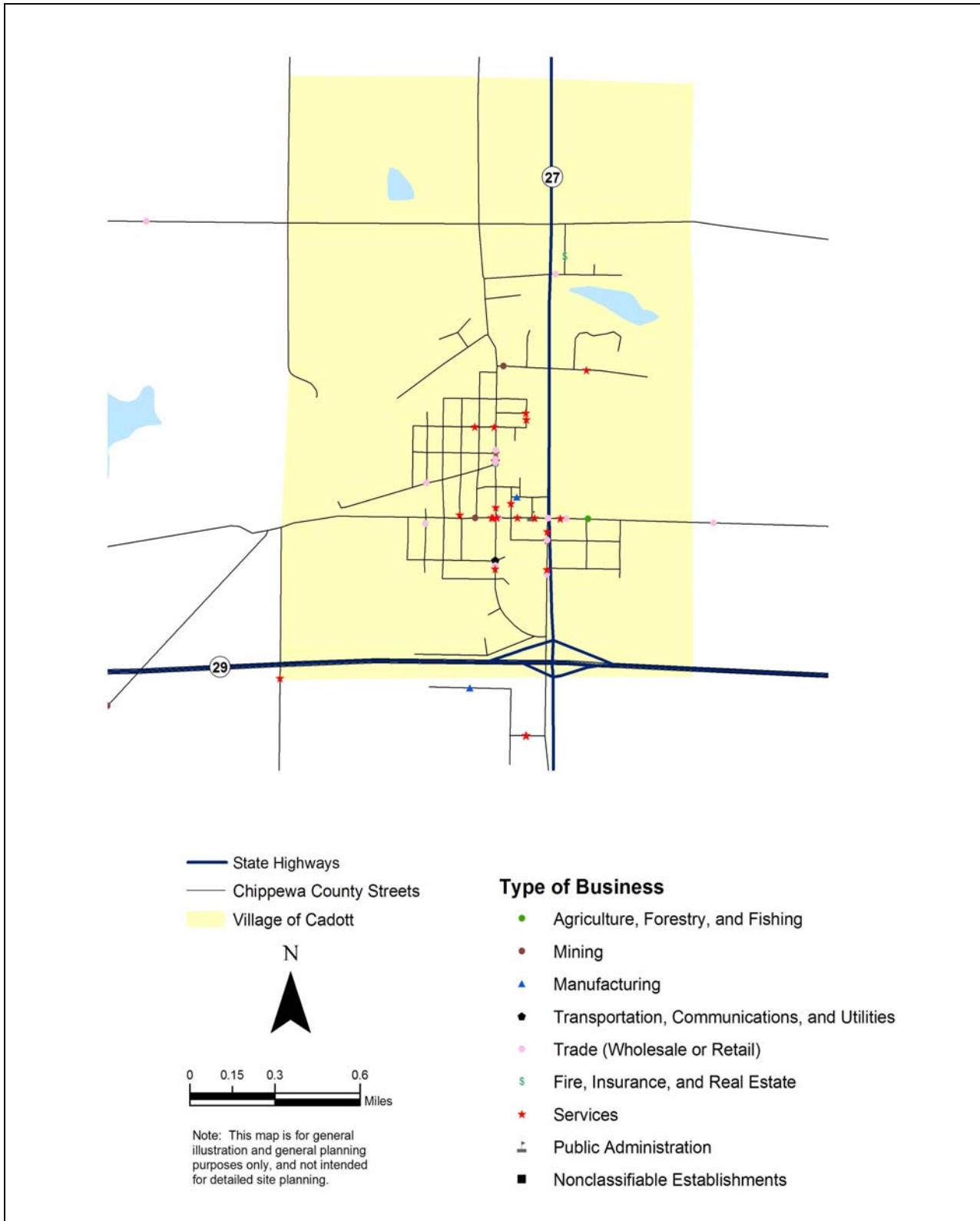
that such access control was inconvenient for farming operations, because owners of land on both sides of the highway had to drive to the nearest interchange in order to get to their land.

### **Current Development**

The Village of Cadott has had a substantial amount of development along the corridor since the highway expansion has been completed. New development includes:

- A motel
- C&N (a trunk factory)
- SFR (a plastics molding and manufacturing company)

**Figure 19**  
**Village of Cadott Businesses**



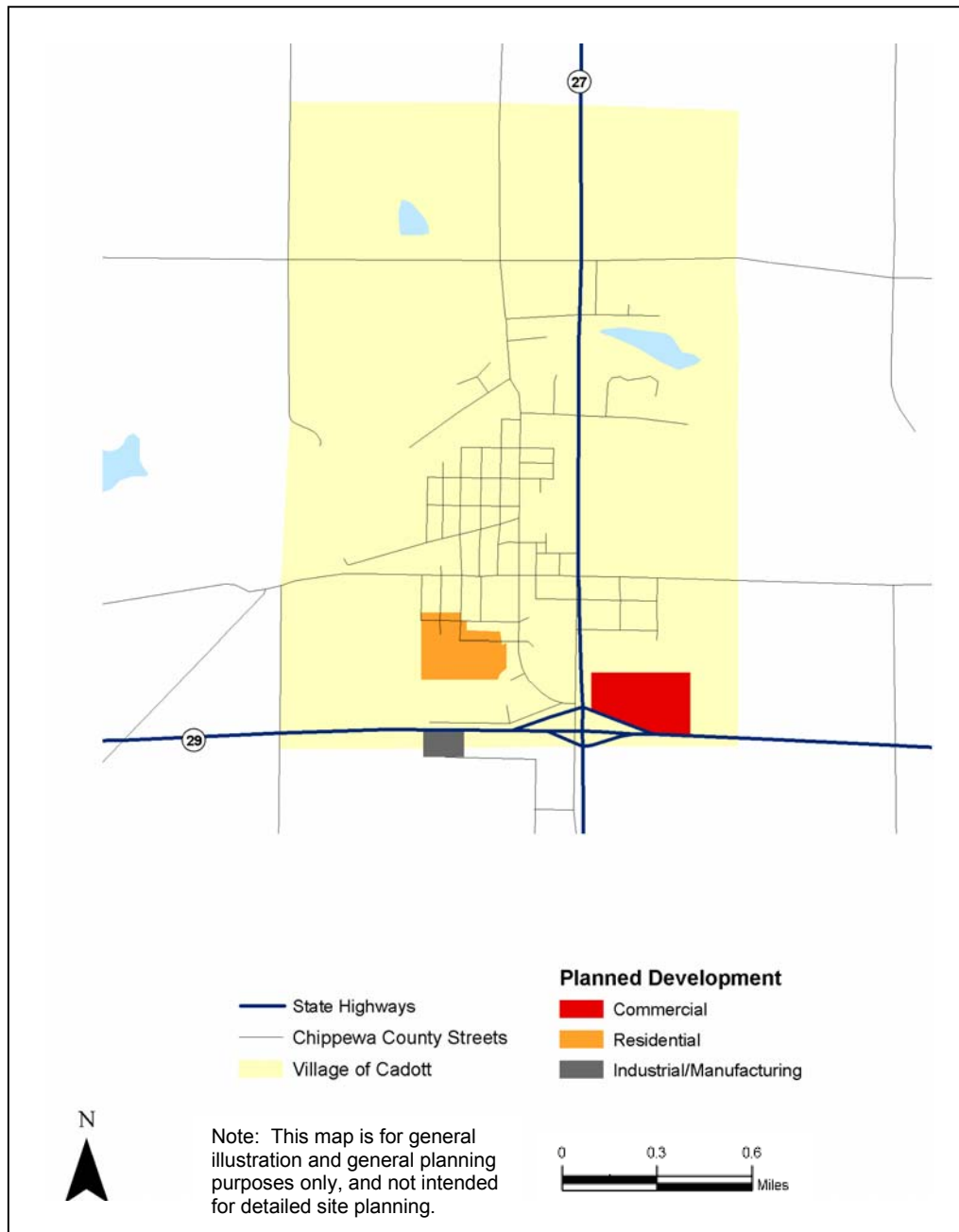
Map illustrating Cadott's business mix. Most businesses are located west of STH 27, May 2002.

## Proposed Development

There is planned commercial development in the northeast corner of the Highways 27/29 interchange, planned residential development near the northwest corner of the interchange,

and planned industrial development along the Highway 29 corridor southwest of the interchange. An existing car dealership will also be expanding and relocating close to this interchange.

**Figure 20**  
**Village of Cadott**  
**Planned Land Use**



Planned residential, commercial, and industrial development around the STH 27/29 interchange in Cadott, May 2002.

### **Additional Comments**

There is good access into Cadott from the interchange and excellent visibility of the businesses near the improved highway. The increase in the volume of traffic from the highway has brought more people into the village. Business owners along the corridor and downtown appear to be doing well. Municipal leaders indicated that inquiries from developers

have increased and overall, the highway improvement has helped Cadott grow economically.

### **Property Values**

Near the interchange, property values have increased by 10-15% during the past year.



Flags lining Cadott's Veterans Tribute can be seen from Highway 29, May 2002.





## **Chippewa Falls**

### **Chippewa County**

**Population:** 12,925

**Highway 29 expansion completed:** 2001

**Bypass completed:** anticipated in 2005

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*Located in a valley between the scenic Chippewa River and Duncan Creek is the 1996 Great American Main Street Award winning community of Chippewa Falls. The city is home to the nationally known Jacob Leinenkugel Brewing Company, Chippewa Springs Water, and Mason Shoe Company.*

*Interviewed: City Planner, Executive Director, Chippewa County Economic Development Corporation.*

### **Community Perception of the Highway Improvement**

The community strongly supported a bypass and new highway alignment in Chippewa Falls because it would reduce truck traffic in the downtown area and nearby neighborhoods and provide better truck access to the industrial park. According to the county economic director, the 4-lane highway was considered a prestige factor for the community. However, the community did express concerns about the types of development that might occur along Seymour Cray Sr. Blvd. and the new Highway 29 interchange. It is desired by the community that WisDOT assume jurisdiction of Seymour Cray Sr. Blvd. and convert it to a state highway (STH 178) facility.

### **Current Development**

Major developments in the Lake Wissota Business Park include: St. Joseph's Hospital (built before the construction of the interchange), Marshfield Clinic, and Technical College (built after the interchange).

### **Proposed Development**

The City of Chippewa Falls has been very proactive in planning for future development near the Highway 29 corridor. Due to the proximity of the Seymour Cray Sr./Highway 29 interchange, the community worked very hard to get additional funding for the East Bridge and the road connection to the interchange. The East Bridge and highway segments between

County Highways I and J were financed by 75% State High Cost Bridge funds, and the City of Chippewa Falls and Chippewa County split the remaining 25%.



The newly constructed East Bridge crosses the Chippewa River, May 2002.

A Cenex service station will open a new truck stop near County Highway T at some point following the completion of the Highway 29 bypass. The existing Cenex service station on River Street will remain open to local customers.

All of the planned economic growth will be served by the new highway bypass and interchange. On the new bypass route, just south of Chippewa Falls, the Town of Hallie has designated commercial and retail development around the County Road OO interchange.





Lake Wissota Business Park, located just off Seymour Cray Sr. Blvd., May 2002.

The adopted land use plan for the City of Chippewa Falls shows a concentration of commercial/office development at the Highway 29/Seymour Cray Sr. Blvd. interchange (where there is no current development at this time). Major plans along this road include additional industrial development in the Riverside Industrial Park. The Lake Wissota Business Park is planned for industrial, commercial, and

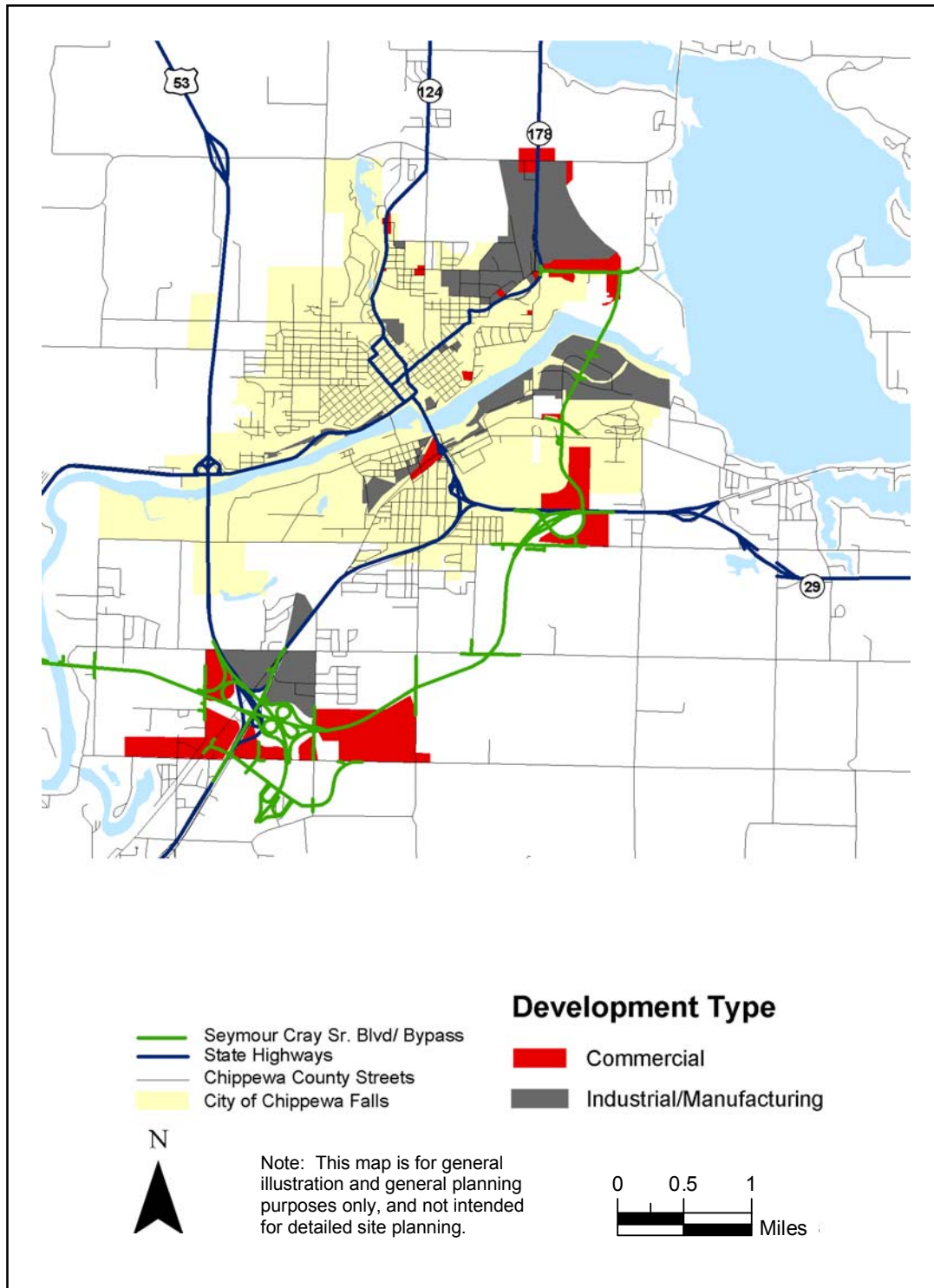
residential development. The first phase of the park is 150 acres. The road, sewer, and water are already in place. The second phase will add another 220 acres to the park.

Business inquiries are directed to the local and county economic development staff, which serves as the first contact for all business inquiries. The goal of the City is to build upon the existing business clusters in the area. In future development, emphasis will be placed on recruiting high technology, computer, medical services, and research industries. There have also been some inquiries about motels and fast food restaurants.

Most of the business prospects are from Minnesota, and consider highway access and travel time important. Business prospects are also likely to be major corporations from other regions looking to establish satellite operations in Chippewa Falls.

The following map illustrates planned land use in Chippewa Falls.

**Figure 21**  
**City of Chippewa Falls**  
**Land Use Plan**



Planned land use in Chippewa Falls. The northeast region will gradually become the city's primary industrial area, May 2002.

## **Economic Impact of the Highway Improvement**

Although the Chippewa Falls Highway 29 bypass will not be completed until 2005, it is currently being used as a marketing tool to attract business prospects. When meeting with interested businesses, the significance of the four-lane highway and its proximity to the interstate system are well understood by both recruiters and potential businesses.

While the new transportation route has greatly improved traffic flow for existing businesses in the industrial park, no businesses were identified as having located in the community solely due to the transportation improvements. Nevertheless, both the Planner and Economic Development Director speculate that the transportation improvements would serve as a major catalyst in the future, attracting industry to the area. Until the bypass is completed, the role that the highway improvements played in getting businesses to locate in this area is difficult to determine.

development viewed positively by downtown merchants.

An existing major issue is a need for signage directing visitors from the highway to the city's downtown shopping district.

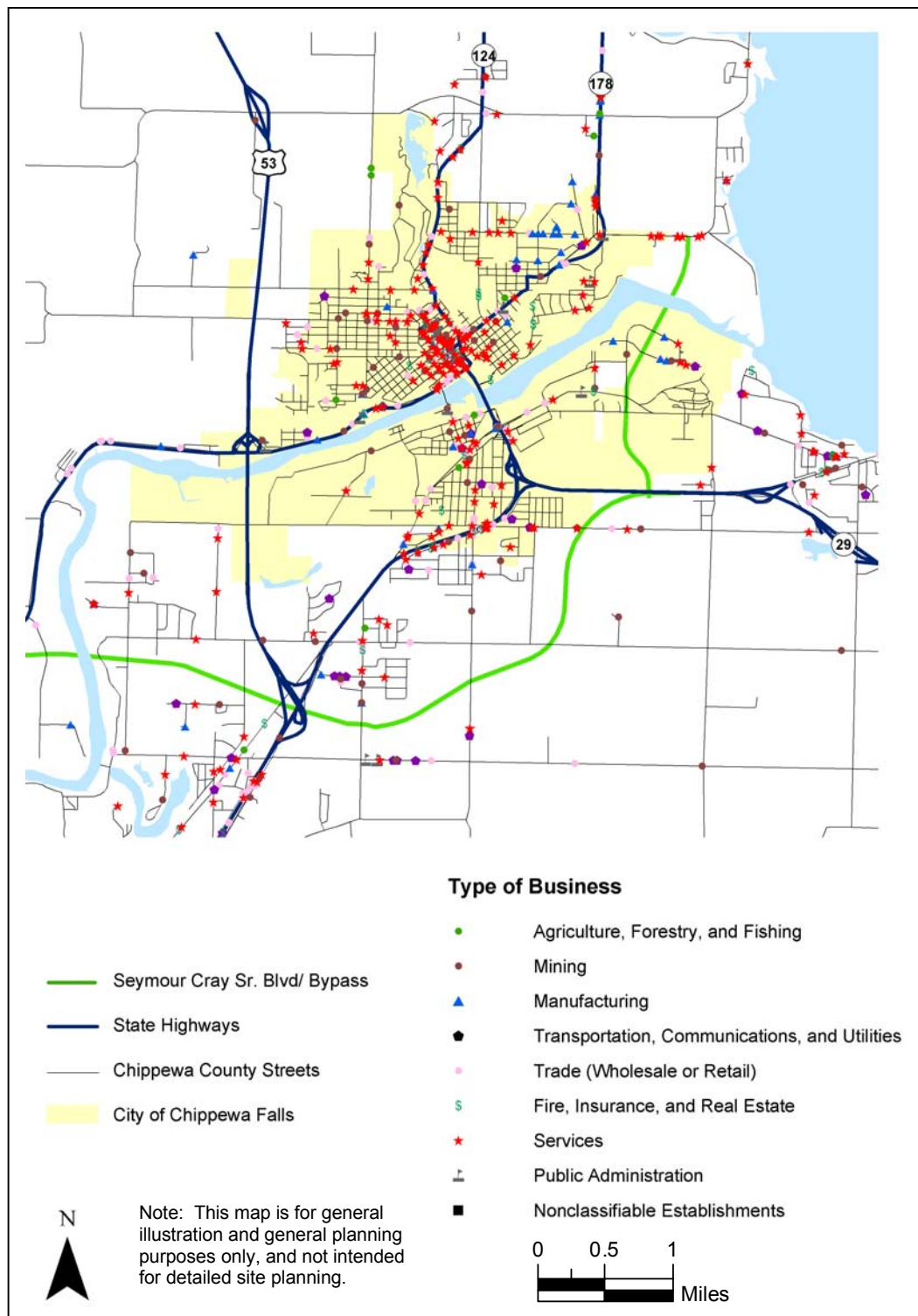


Both commuters and businesses involving transport eagerly anticipate the Chippewa Falls bypass, May 2002.

Retail activity in downtown Chippewa Falls is very strong. The City participates in the Wisconsin's Main Street Program and has received several awards for its business promotion efforts. The new boulevard and interchange have already taken some of the truck traffic from the downtown area, a

The following map illustrates the variety of businesses in the City of Chippewa Falls.

**Figure 22**  
**City of Chippewa Falls Businesses**



A graphic representation of Chippewa Falls' Businesses, dominated by Services, Government, Manufacturing, and Trade establishments, May 2002.

## **Property Values**

In two recent property transactions, the City purchased land from the State for \$2,000 and \$4,000. The assessed value of these properties is unknown. However, the City Planner and Economic Development Director anticipate the land's value to be much higher than the purchase price.

The listed price for industrial acreage is \$15,000 per acre, low in comparison to the appraised value. Property zoned for office use is offered at market value, selling for up to \$2.75 per square foot.



## **Colby** **Clark & Marathon Counties**

**Population:** 1,616

**Highway 29 expansion completed:** September 1999

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*Located on the south side of the new Abbotsford bypass, the City of Colby is known for the development of Colby Cheese. Local organizations annually sponsor a Dairy Breakfast and Colby Cheese Days.*  
Interviewed: Mayor, City Clerk-Treasurer.

### **Community Perception of the Highway Improvement**

There were not as many issues or concerns regarding the highway expansion in Colby in comparison to the nearby community of Abbotsford. The public has, however, expressed concerns about the additional cost to the community for installing sewer and water on newly annexed land near the bypass.

### **Current Development**

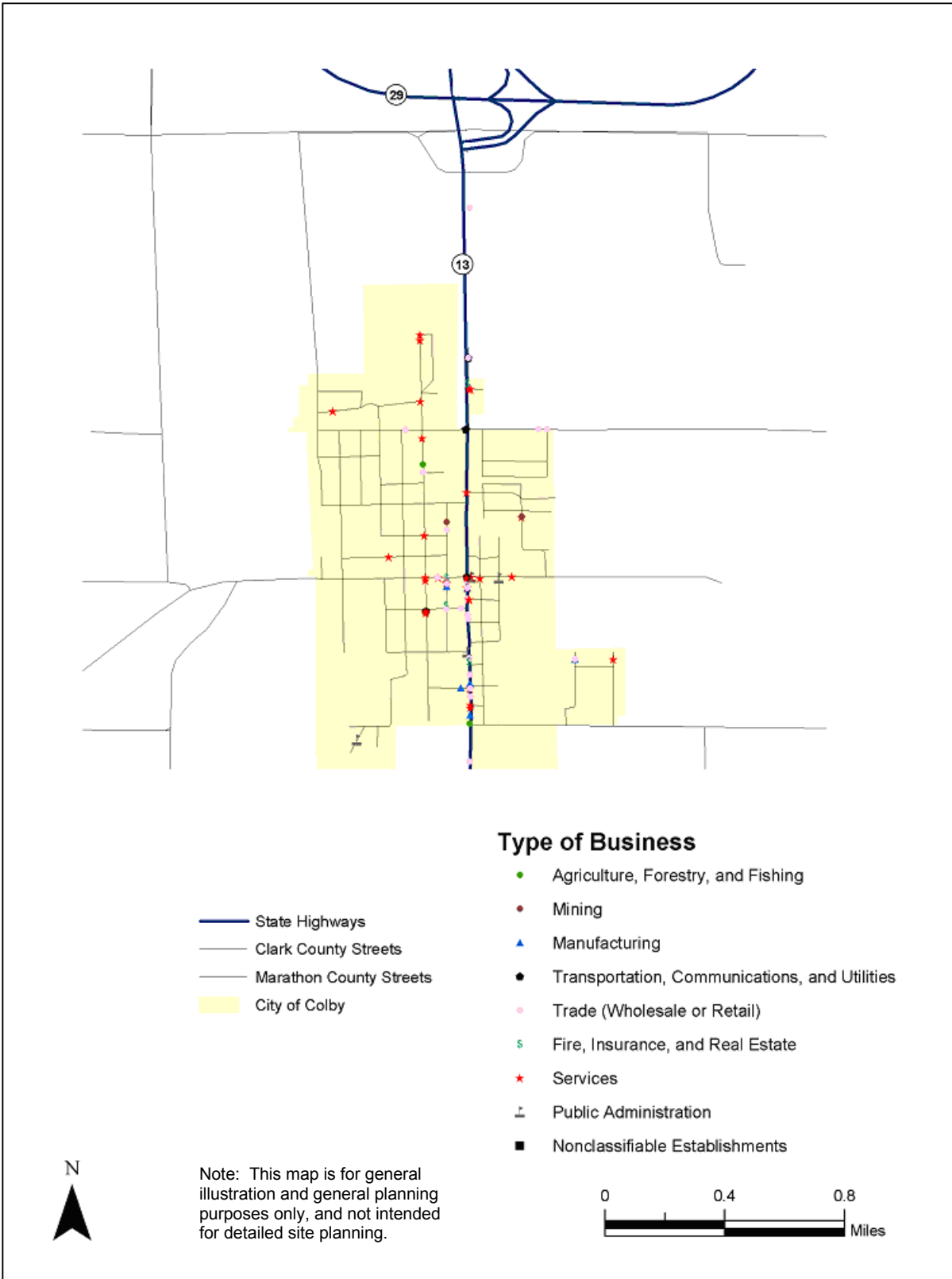
In anticipation of the highway bypass, the City annexed the majority of the land located north of Marshfield Clinic for future development. Later, as a direct result of the construction of the bypass, a Shell station and a Hardee's restaurant located near the bypass.

No industrial development has occurred near the bypass since the City's priority is to fill the remaining lots in its existing industrial park, which already has infrastructure in place including sewer, water, and curb and gutter.

According to local officials, in the past three to four years there has been rapid growth in single-family housing. This rapid growth occurred in response to the housing demand of commuters working in nearby regional trade centers, primarily in Marshfield. With the completion of the Highway 29 expansion, more commuters traveling east, towards Wausau also contributed to increased the demand for housing. The new 65 mph speed limit on Highway 29 is helping to facilitate housing growth in Colby.

The following map in Figure 23 illustrates the various types of businesses located in Colby.

**Figure 23**  
**City of Colby Businesses**



Highway 13 (Division Street) is primarily zoned Commercial, dividing the City of Colby between Clark and Marathon Counties, June 2002.

## **Proposed Development**

Colby is building a new frontage road east of Highway 13, which runs north and south through the city. The frontage road will run parallel to Highway 13, improving access to existing and future businesses near the bypass and Highway 29.

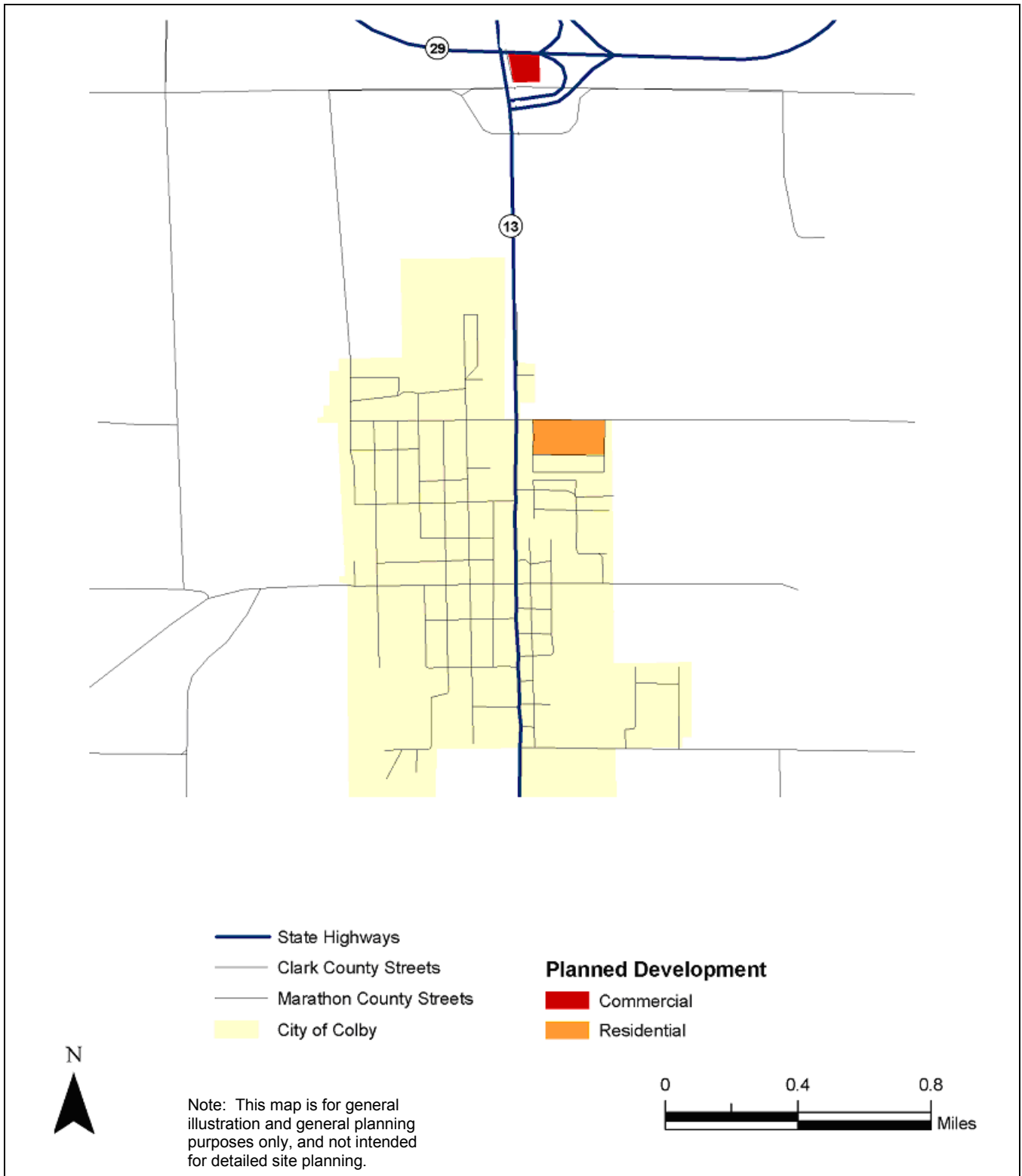


This Log Home was used for almost a century before it was moved to the Rural Arts Museum in Colby, June 2002.

The following map illustrates planned land use in Colby.



**Figure 24**  
**City of Colby**  
**Planned Land Use**



In Colby, future residential development will take place east of Highway 13, between E. Adams and Herman Streets, June 2002.

## **Economic Impact of the Highway Improvement**

The highway improvement has sparked interest in development on Colby's newly annexed land, located directly off the bypass. Developers' most recent interest in Colby was in building the new Shell station and the possibility of locating a restaurant near the bypass.

More traffic is being generated through the city as more vehicles are using this route to access the four-lane highway. The City views this positively for its businesses. According to local officials, the highway expansion has not had any negative economic impacts on the community.

## **Property Values**

Property along the highway corridor, particularly along Abbotsford's Highway 29 bypass, has increased in value. In the very early stages of the construction of Abbotsford's bypass, a new bank purchased approximately 2 acres of land near the interchange for approximately \$300,000. Around 1998, there was a boom in commercial interest near the interchange on the Marathon County side of Highway 13. Approximately 4 acres were also purchased for a Shell gas station near the interchange for \$700,000.



The Shell Station has excellent access to Highway 29 from the Abbotsford bypass. June 2002.

Another property along the Highway 29/13 interchange, directly along the bypass, is currently for sale. The current asking price is between \$300,000 and \$350,000. Culvers Frozen Custard was one of the parties interested in the property, but a deal did not materialize. This property of a little over 4 acres was previously farmland with a value of \$350 per acre.

The land on the west side of Highway 13 is mostly wooded and part of the township of Colby. At this time, there is no development on the property and very little discussion about a buyer for the land.

In 2002, housing in the City of Colby was valued at approximately \$100,000 for a new, three bedroom, two bathroom home on an approximately 100' by 150' lot.



## **Curtiss**

### **Clark County**

**Population: 225**

**Highway 29 expansion completed: 1997**

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*Located north of the Highway 29 and County Road E interchange, Curtiss is a four-season village, with a well-groomed snowmobile trail, various sports fields, community sponsored events, a Bed & Breakfast, and camping in the park. Interviewed: Village President, Village Trustee.*

### **Community Perception of the Highway Improvement**

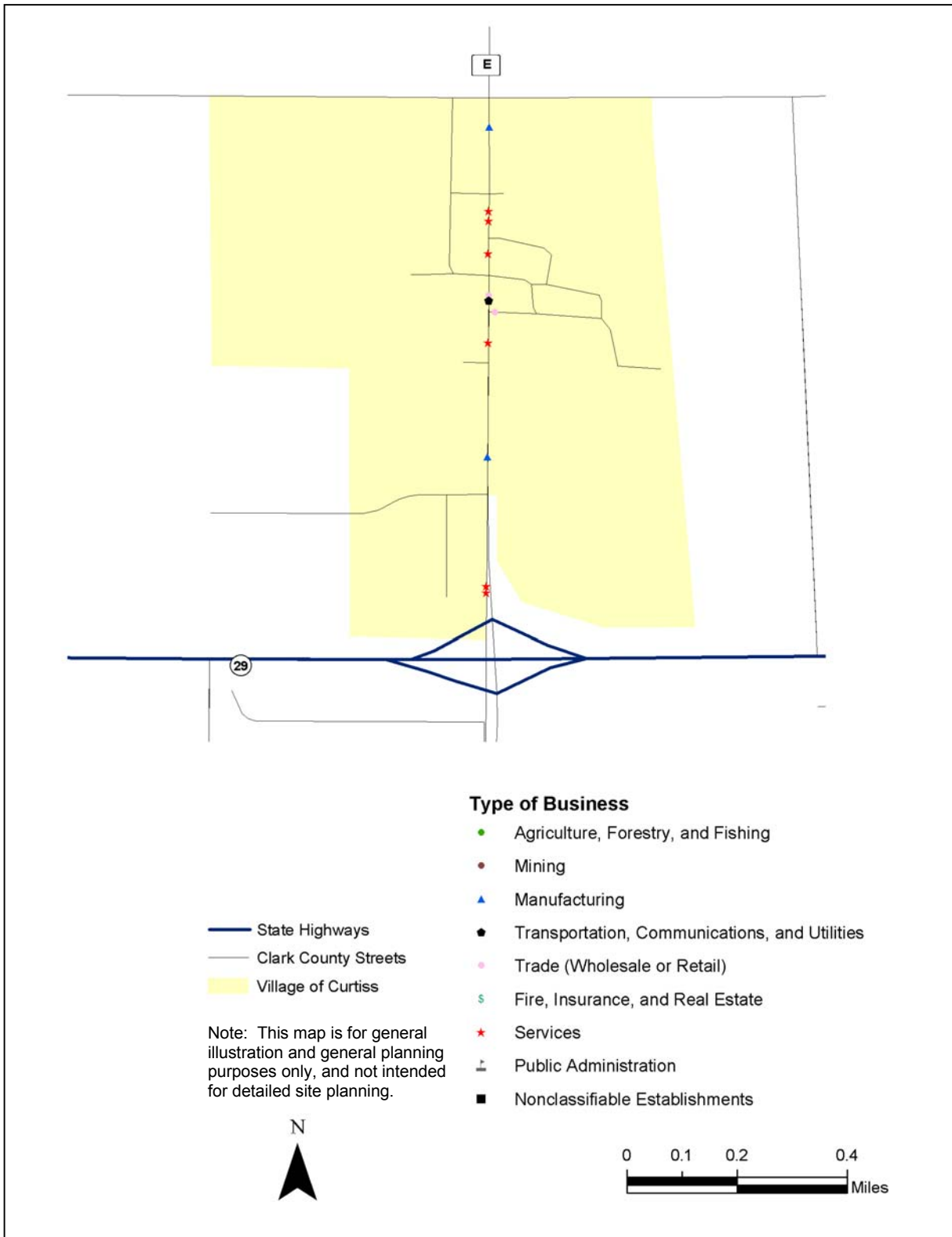
Highway safety was a primary concern for the Village of Curtiss regarding the Highway 29 improvement project. Before the construction of the interchange and the highway capacity improvement, the existing highway corridor was dangerous for area residents due to the high traffic. The Village supported the expansion for both safety reasons and growth opportunities.

### **Current Development**

The Village has designated property for industrial and commercial development but nothing has been developed at this time.

The following map illustrates the various types of businesses in Curtiss.

**Figure 25**  
**Village of Curtiss Businesses**



Most Curtiss businesses are located along Meridian St. (County Highway E), which divides the Village in two, June 2002.

## Proposed Development

The Village of Curtiss is at the beginning stages of development planning. However, there has been substantial interest in bringing more businesses into the village, with most of the interest in development concentrated near the new interchange. No development has been confirmed at this time, but a supper club, a truck stop, and a motel are currently under consideration.

Curtiss has about 60 acres reserved for industrial development, including a 50-acre industrial park north of the corridor and 10 acres along the east side of County Road E, along Main Street and directly north of the interchange. The Village has also set aside another 40 acres in the northeast quadrant of the interchange for commercial development. This area was previously farmland, purchased for about \$1,200 - \$1,500 per acre. It is currently offered at \$3,000 per acre. There is no sewer or water on site.

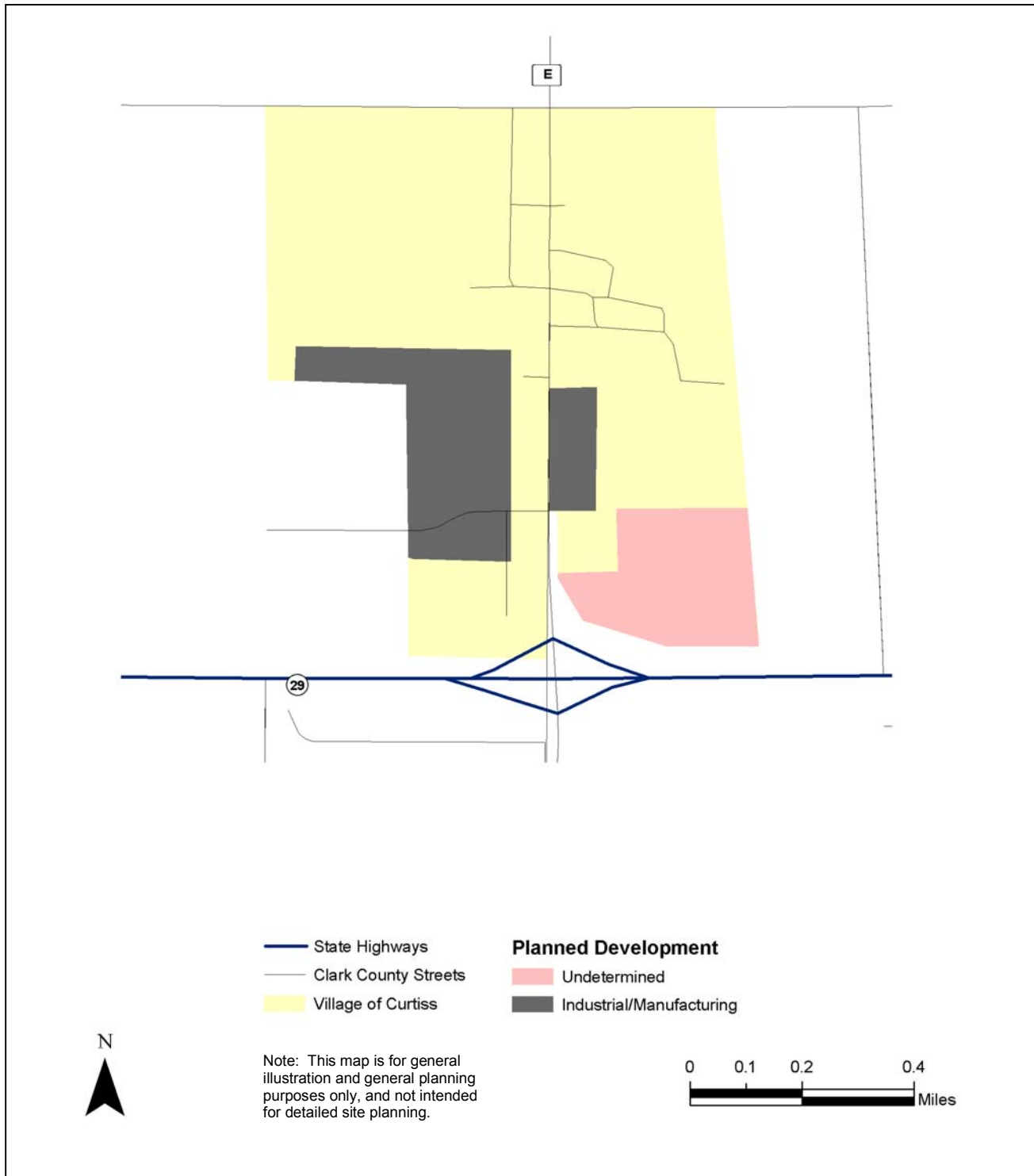


Abbyland Pork Pack is located right off the Highway 29 and County Highway E interchange, June 2002.

Curtiss has not taken an active role in recruiting businesses to the community. Most of the businesses inquiries are the result of developers approaching the Village with proposals for development along the highway and near the interchange.

The following map illustrates planned land use in Curtiss.

**Figure 26**  
**Village of Curtiss**  
**Planned Land Use**



Part of Curtiss' future development north of the Highway 29/County Highway E interchange will be industrial and part is yet to be determined, June 2002.

## **Economic Impact of the Highway Improvement**

Village officials have indicated that more businesses have been considering Curtiss for development because of the highway expansion and new interchange. Curtiss does not believe that the economic development opportunities would exist without the new interchange and that access to the highway via the interchange is crucial.

With the completion of the highway expansion, traffic passing through Curtiss on County Road E has increased, positively influencing the village's businesses.

## **Property Values**

Property values have increased along the improved highway corridor, especially near the interchange. The National Farmers Organization (NFO) is currently located in the northwest quadrant of the interchange and is considering relocating and selling the property to take advantage of the anticipated increase in property values.

A local property owner in the northeast quadrant of the interchange is in the process of selling 40 acres for \$3,000 per acre. This land was previously valued at \$1,200-\$1,500 per acre, based on its value as farmland. It is anticipated that the land will be used for an industrial park; however, there are currently no utilities (sewer and water) on the property.



Forty acres of developable land are visible from the Highway 29 corridor and County Highway E, June 2002.



## **Edgar**

### **Marathon County**

**Population:** 1,386

**Highway 29 expansion completed:**

Abbotsford to Edgar: 2000

Edgar to Marathon: 1999

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*Edgar, “the Village of Parks”, is centrally located between Green Bay and Minneapolis with direct access to both Highway 29 and Highway 153. Whether one is savoring a malt the old fashioned way at The Back Room Soda Shop, recreating in one of the parks, or attending one of the many community events, Edgar is a place to enjoy. Interviewed: Village Administrator and Zoning Administrator, Deputy Clerk Treasurer.*

### **Current Development**

An Edgar family restaurant was lured to the southwest quadrant of County Highway H and State Highway 29 by Customer One Cooperative, who owns the entire truck stop located at the interchange. This has not benefited Edgar because the relocated development is now outside the Village. The restaurant’s relocation is related to the highway’s expansion but was also the result of other business dynamics.

Residential development has taken place in Edgar, but it cannot be attributed to the highway expansion.

### **Proposed Development**

A 70,000 square foot concrete building became vacant in 1994. It is currently available and suitable for cold-storage and other manufacturing uses. The Village is actively searching to fill this building and is hoping that

the expanded Highway 29 would help with this goal.



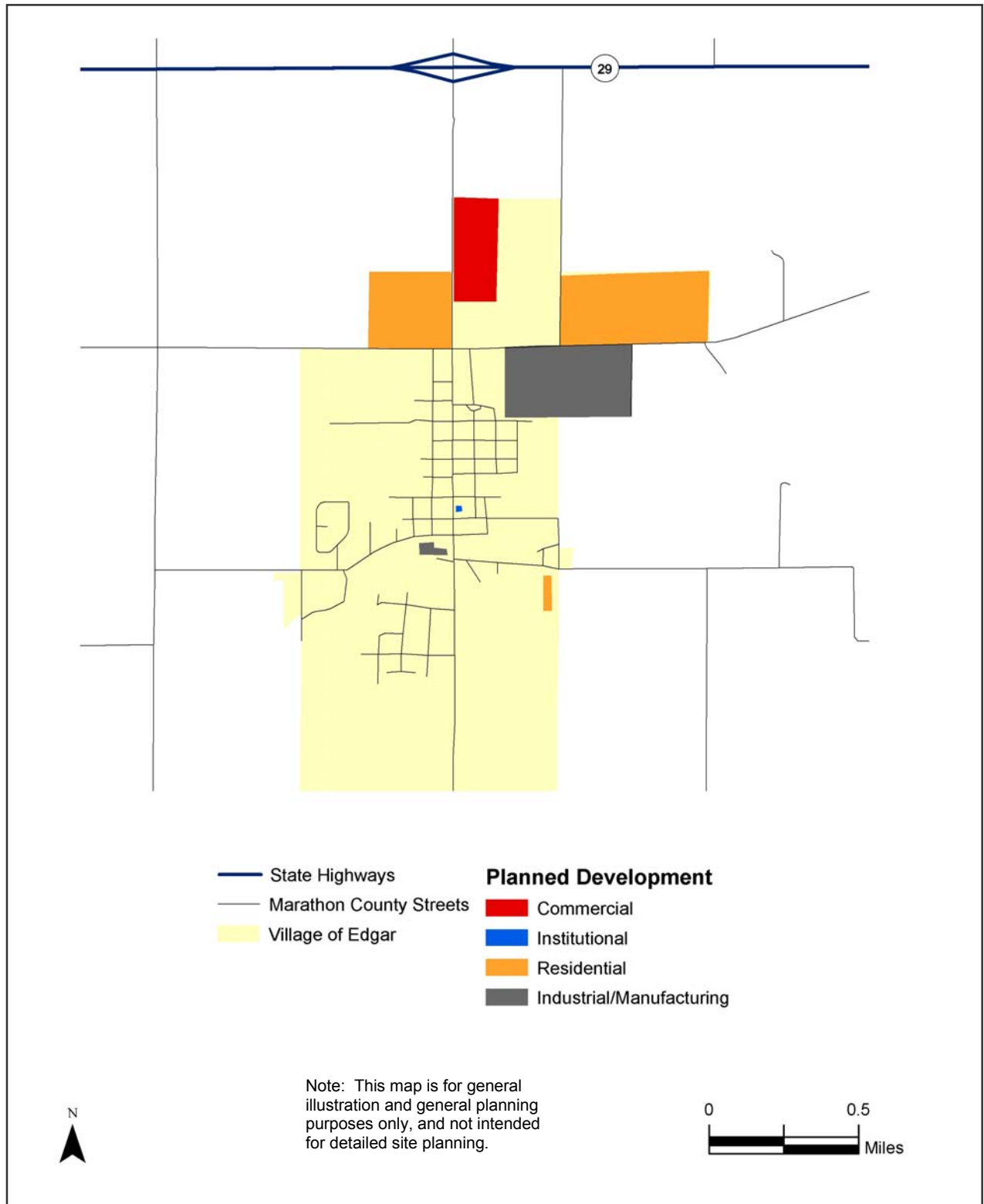
With the expansion of Highway 29, the Village of Edgar is actively searching to fill this 70,000 square foot vacant building, March 2003.

The Village’s Planning Commission is in the process of developing a Smart Growth-compliant comprehensive plan.

The map on the following page illustrates planned development in Edgar.



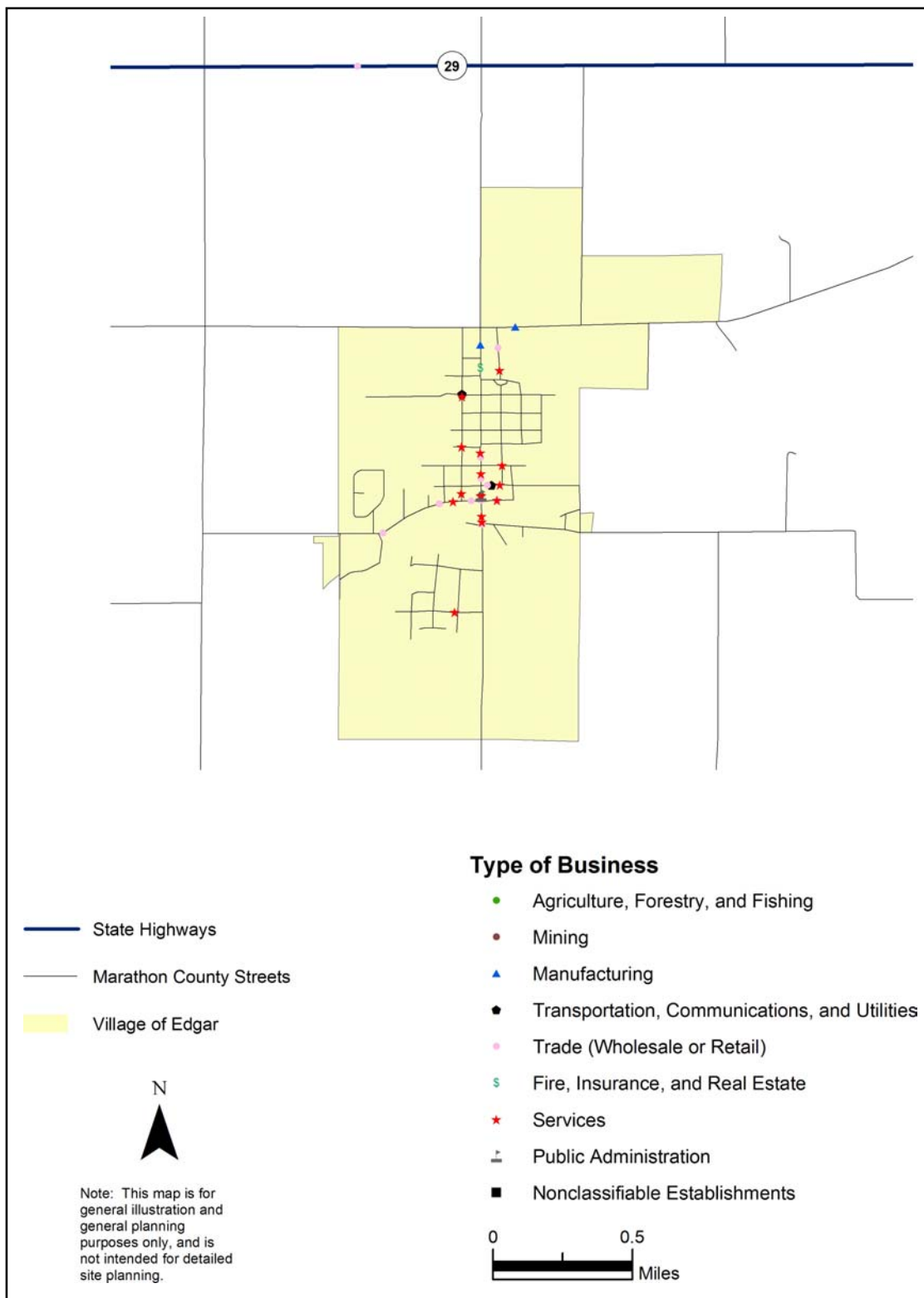
**Figure 27**  
**Village of Edgar**  
**Planned Land Use**



Future development in Edgar will include commercial, residential, industrial, and institutional land use, shown in this map, March 2003.

The following map illustrates the business mix in the Village of Edgar.

**Figure 28**  
**Village of Edgar Businesses**



The Village of Edgar's business types and locations are shown in this map, March 2003.

**Economic Impact of the Highway Improvement**

There was hope that the highway improvement would increase developers' interest in Edgar, however, so far this has not occurred. In fact, a supper club and a fast food restaurant were lost due to Right of Way needs for the highway.

**Property Values**

There has been a negligible increase in property values, but it is not attributable to the highway.

**Additional Comments**

Edgar continues to be a bedroom community for workers in the Wausau Metropolitan Area, located 18 minutes away by car. The Village hoped that the expanded highway would attract development, but the highway has so far only facilitated access to Wausau and Marshfield.

Development is currently taking place north of the Village limits. In general, development and investment efforts are concentrated in the Wausau Metropolitan Area.



## **Green Bay** **Brown County**

**Population:** 102,313

**Highway 29 expansion completed:** 1988

---

*Located at the east end of Highway 29, Green Bay is known for its paper manufacturing industry and the Green Bay Packers football team, along with an abundance of entertainment and recreational activities. Interviewed: Brown County Planning Director, Brown County Principal Planner, Vice President of Economic Development, Green Bay Area Chamber of Commerce.*

### **Community Perception of the Highway Improvement**

Safety was the main concern for people living in Green Bay. People were looking forward to the highway expansion with hopes for crash reduction. However, with the increased speed, there has been an increase in side-collision accidents when cars are trying to cross the highway at at-grade intersections.

### **Current Development**

There has been residential growth in Green Bay because the Highway 29 expansion has made it easier for people to travel from Shawano County to Brown County for employment. Low urban development is encouraged, however, the highway expansion has facilitated urban sprawl. At this time, there has not been growth in the manufacturing sector.

There has been some retail activity near the highway. Two car dealerships located at the intersection of Highway 29 and Highway 32. A few new gas stations and office buildings have also located along the corridor.

A map of Green Bay's businesses was not created due to the large number of business (over 8,000) establishments in the city.

### **Proposed Development**

Since the highway expansion has taken place over 10 years ago on this portion of Highway

29, recent planning has been focused on attracting businesses to the urban core, because many businesses are moving to the highway and leaving the downtown empty. The Highway 29



A view from Green Bay of the STH 29/32/USH 41 interchange, July 2003.

expansion per se has not increased developers' interests in Green Bay. Rather, developers' increased interest in the community has been directed toward the additional interchanges that will be constructed in the future along the highway. A map of Green Bay's future land use was not provided because the city represents the study corridor's end point and was not researched in depth.



## **Hatley**

### **Marathon County**

**Population:** 476

**Highway 29 expansion completed:** Ringle to Hatley: 1995  
Hatley to Shawano County line: 1997

*Located off Highway 29 and County Trunk Highway Y, the Village of Hatley can be described as a small bedroom community with a unique country flavor. Every summer, the village, with a population of less than 500, gathers for a three-day celebration of music, food, and fun, drawing in over 10,000 people from nearby communities. Year round, people travel over 30 miles to dine at Hatley's Freddy's Mexican and More, a restaurant known for its delicious homemade Mexican cuisine. Interviewed: Village President.*

### **Community Perception of the Highway Improvement**

The most important issue for the public was the highway's intersection with County Road Y. This crossing is dangerous because of poor visibility and the intersection will be rebuilt in 2005.



This Subway shop and the Conoco truck stop across the street located on CTH Y after the expansion of Highway 29 to four lanes, April 2003.

### **Current Development**

In 1997, a Conoco gas station and truck stop located on County Road Y. Across the street, a

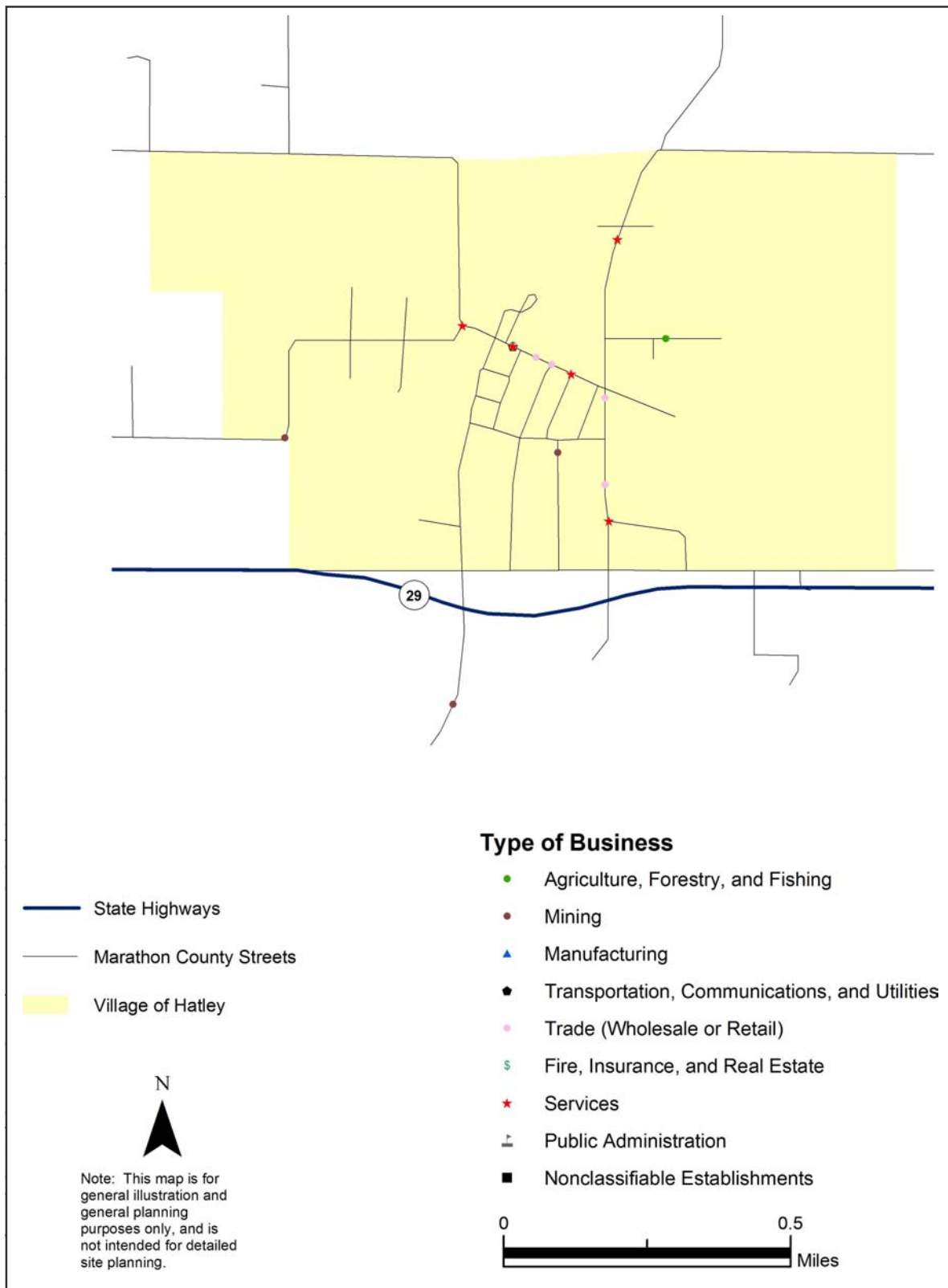


Freddy's Mexican & More, located on CTH Y, was completely refurbished and expanded after the Highway 29 expansion, April 2003.

Subway Sandwich shop, Freddy's Mexican & More restaurant, two offices, and a beauty shop also located in the village. Freddy's Mexican & More was refurbished from a much smaller bar/restaurant.

All of these existing developments were related to the highway improvement. Figure 29 provides a map of the area's businesses.

**Figure 29**  
**Village of Hatley Businesses**



Just over 80 businesses are located in the Hatley Village area, April 2003.

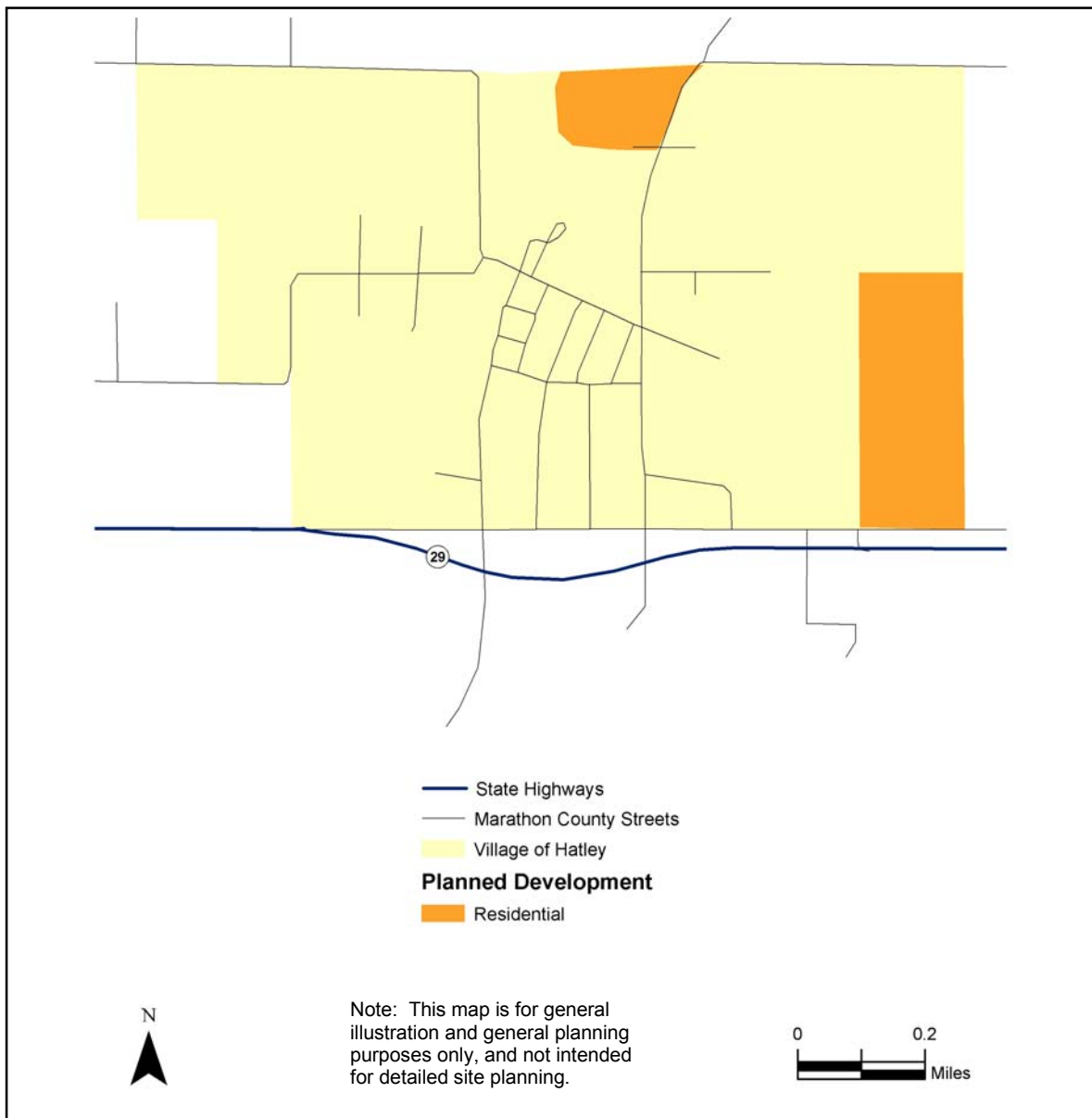
## Proposed Development

The Village is currently working on its first comprehensive plan. This is not attributed to the highway expansion. Figure 30 illustrates planned development in Hatley.

## Additional Comments

The highway has facilitated commuting to Wausau for work and shopping. However, Hatley is a bedroom community, and the highway has not directly increased developers' interests in the village.

**Figure 30**  
**Village of Hatley**  
**Planned Land Use**



At this time, there is planned residential development on Hatley's north and east sides, April 2003.





## **Village of Hobart**

### **Brown County**

**Population:** 5,090

**Highway 29 expansion:** Not yet completed

---

*The Village of Hobart is located on the western edge of the city of Green Bay, yet Hobart has managed to preserve its beautiful natural setting. It is a desirable place to live, especially since Hobart has the highest per capita income in Brown County. The entire village is located within the original boundaries of the Oneida Nation Reservation, therefore Village staff works hand in hand with the Oneida Nation. Interviewed: Village Administrator.*

### **Community Perception of the Highway Improvement**

The biggest concerns with Highway 29 before the expansion were the fatalities and injuries related to the highway. The elderly and new drivers have the most trouble crossing the current Highway 29 and the community wanted the highway expansion, most importantly for safety.

### **Current Development**

About 70 new homes are built each year. The map in Figure 31 illustrates, by color code, the various business establishments located in Hobart.

### **Proposed Development**

At this time, Highway 29 is not four-lane in Hobart. More than 3,000 people from the village completed a survey on turn lanes and highway access issues. From this grew a committee of about 30 people and the *STH 29 Corridor Study*, in which Hobart went through a planning process to identify future development centers near the Highway 29 expansion area. The Village of Hobart is in the process of developing a commercial area along Highway 29 and has plans to develop 136 acres off the Highway 29 and County Road VV intersection into a business park. Figure 32 illustrates the location of this business park and other planned development by the village.

### **Economic Impact of the Highway Improvement**

The Village of Hobart is basing planning around the *STH 29 Corridor Study*, conducted by the Brown County Planning Commission. If the State does not follow the recommendations of this study, there could be potential negative impacts on the planned commercial development and two existing businesses near the corridor.



Shrovnal's Church Interiors is located at the intersection of STH 29 and CTH FF. This intersection is a prime location for development if an interchange locates here, July 2003.

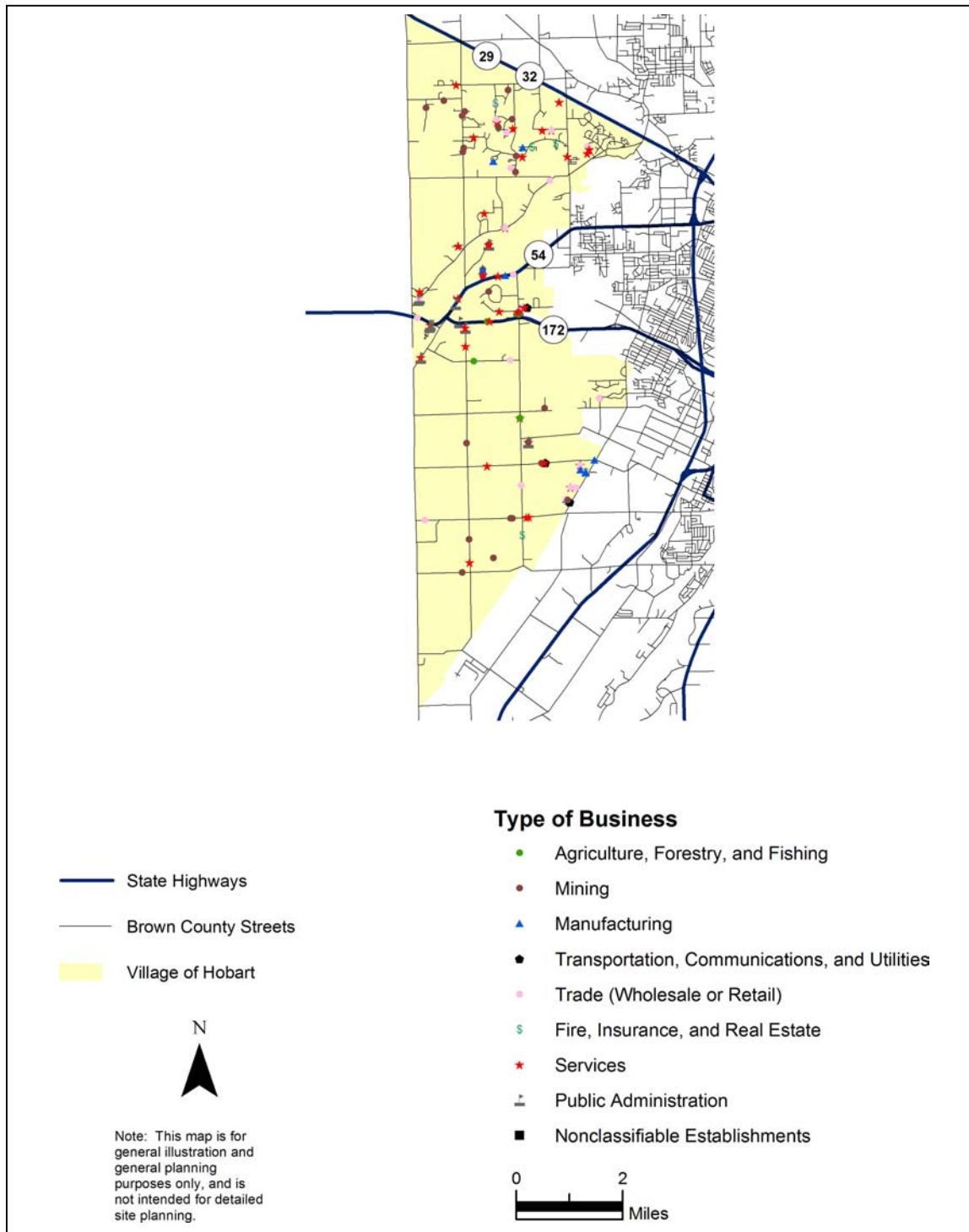


## Property Values

Property values have increased slightly, but there is anticipation that the values will increase

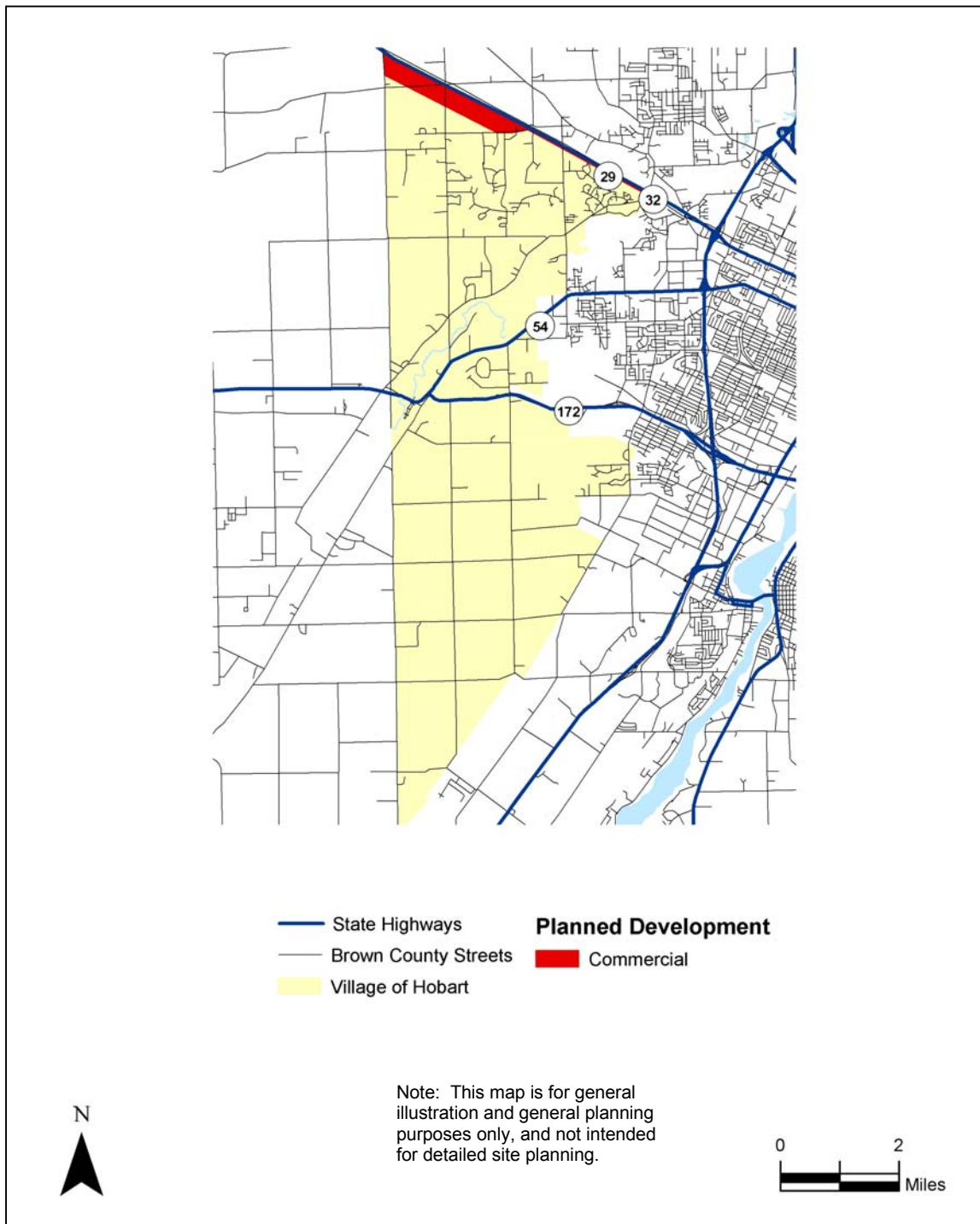
dramatically as soon as the interchanges are in place and the Highway 29 expansion in the Village of Hobart is completed.

**Figure 31**  
**Village of Hobart Businesses**



Over 150 businesses are located within Hobart's village limits, July 2003.

**Figure 32**  
**Village of Hobart**  
**Planned Land Use**



The Village of Hobart is developing a commercial area along Highway 29 and has plans to develop 136 acres off the Highway 29 and County Road VV intersection into a business park, July 2003.



## **Howard**

### **Brown County**

**Population:** 13,546

**Highway 29 expansion completed:** 1988

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*Located northwest of Green Bay, the Village of Howard has grown into a prosperous and popular residential and business community. Thirteen miles of the Mountain Bay State Recreational Trail run through Brown County on top of an abandoned railroad grade with a compacted crusher dust surface for bicyclists. Interviewed: Village Planner.*

#### **Community Perception of the Highway Improvement**

There was concern over whether access at future points will be in the form of at-grade intersections or interchanges.

#### **Existing Development**

Woodman's grocery store, a restaurant, a bank, and other commercial development were established at the intersection of Highway 29 and USH 41 in 2000.

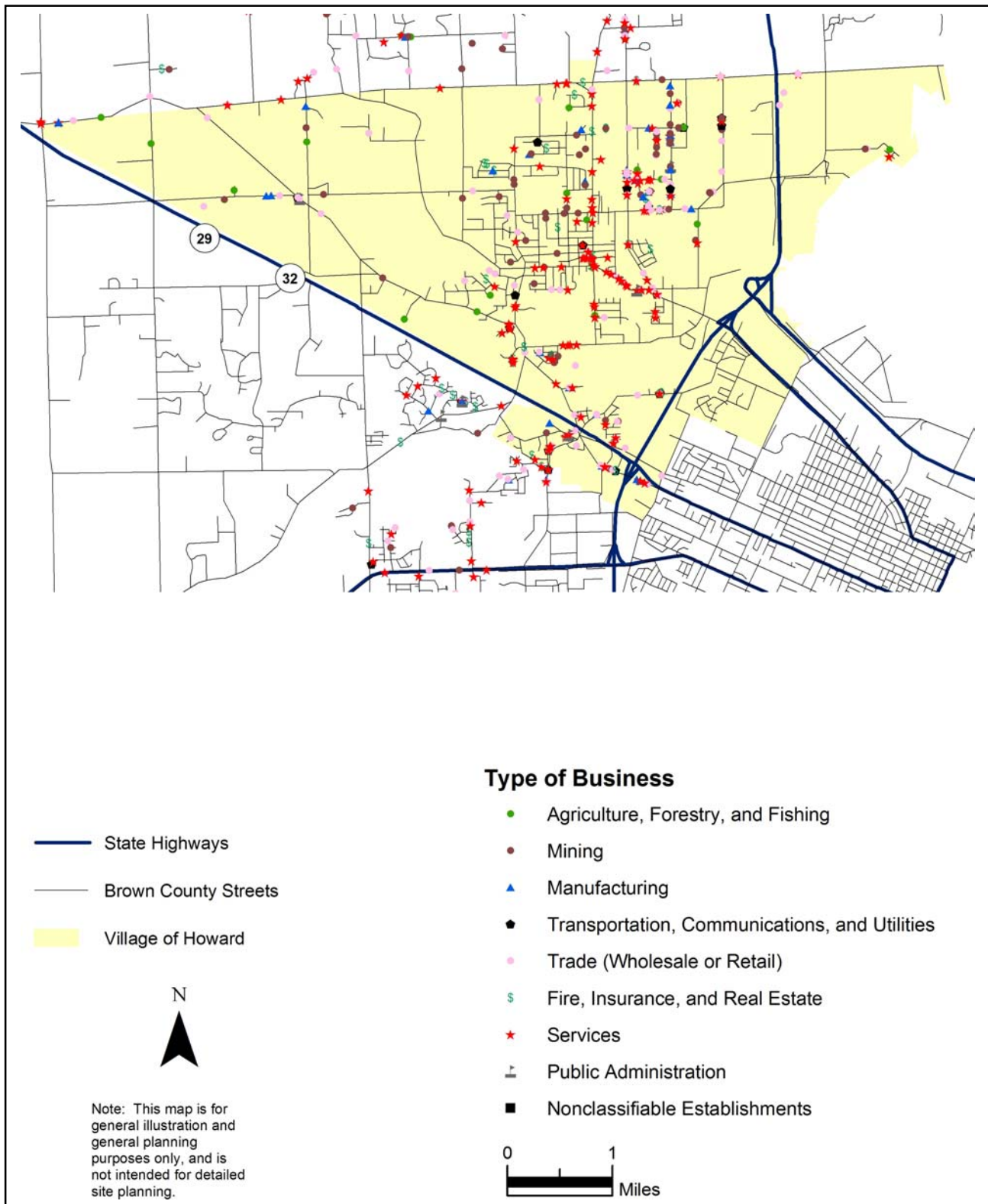


American Medical Security relocated from Green Bay into Howard's AMS Business Park, established in 1993, Photo courtesy of AMS.

Growth in Howard is more related to Growth of the Green Bay, rather than to Highway 29 per se, especially since the expanded Highway 29 stayed in its original alignment and the urban core's location has not changed.

American Medical Security (AMS) Business Park located at the intersection of Highway 29 and County Road J in 1993, when the company relocated from Green Bay. AMS is currently the village's largest employer. Howard's business types and locations are illustrated in Figure 33.

**Figure 33**  
**Village of Howard Businesses**



This map shows the Village of Howard's businesses by type. Construction, trade, and service establishments are predominant, May 2003.



Maplewood Meats, a meat product wholesaler, relocated from Shawano County to its current location off Highway 29 in Howard, May 2003.

### Proposed Development

The Village adopted a Smart Growth plan in September 2002. The plan was prepared by Brown County Planning Commission. *STH 29 Corridor Study*, also prepared by Brown County Planning Commission, was completed in August 2002.

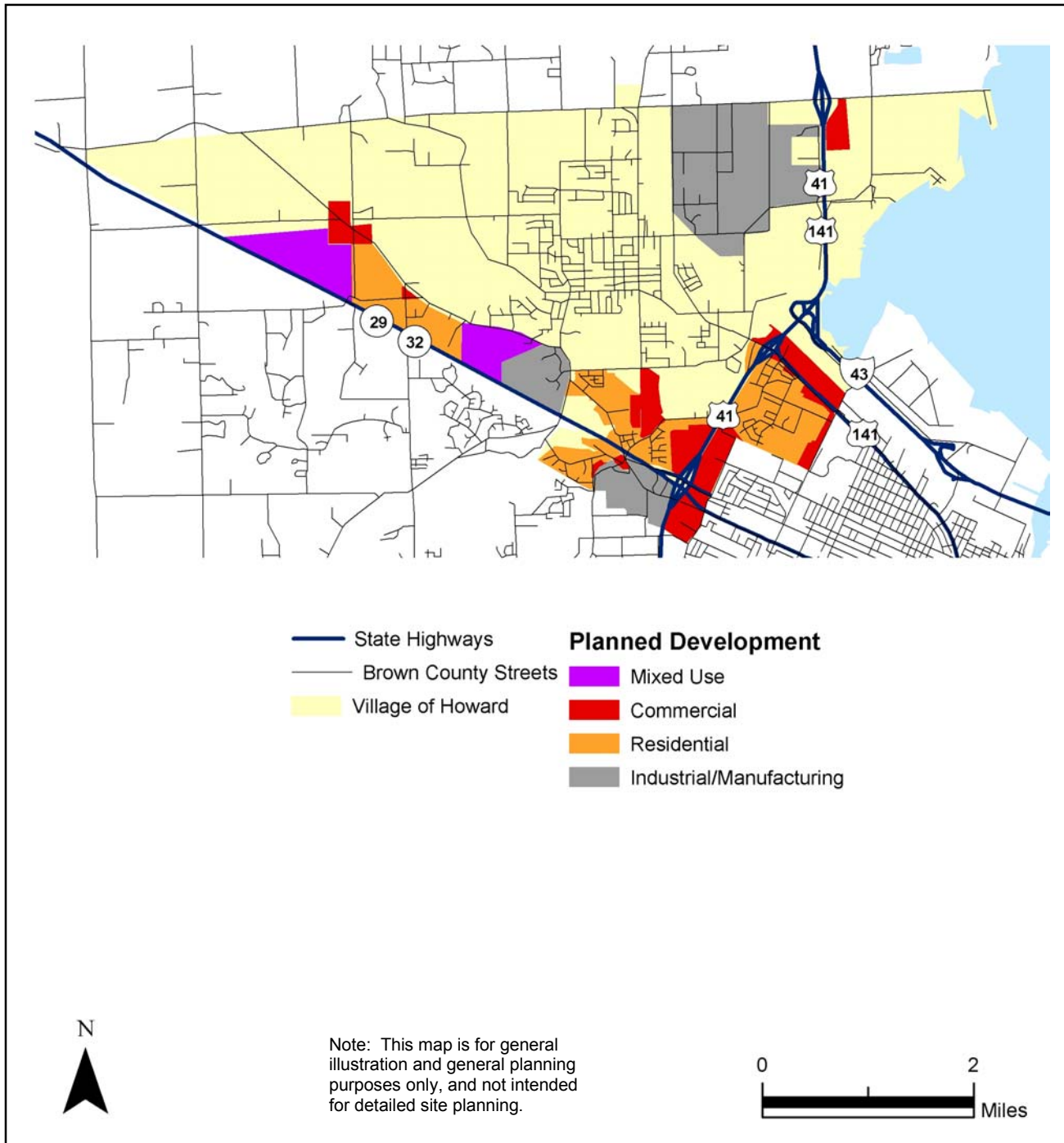
There have been increased developer interests in the western part of the village because of the highway's ease in travel access; however, the village strives to contain development with planning and growth management. Howard's Land Use Plan map is provided in Figure 34.



Woodman's grocery store, located at the intersection of Highway 29 and USH 41, is one of the Village of Howard's largest employers, May 2003.



**Figure 34**  
**Village of Howard Land Use Plan**



This map of Howard's 2002 Land Use Plan reflects the Village's adopted development plans, May 2003.



## **Maple Grove Shawano County**

**Population:** 1,045

**Highway 29 expansion completed:** 1995

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*The Town of Maple Grove is located in the Southeastern end of Shawano County. The area is known for its prime agricultural land and dairy production. Interviewed: Member of Shawano County Board of Supervisors, District 13 (Board of Health, Solid Waste Board).*

### **Community Perception of the Highway Improvement**

The unknown status of the future highway expansion and its impact was a concern for many of the residents of the Town of Maple Grove. Maple Grove is zoned AG-1; therefore, farmers had questions about development as it related to potential rezoning requests due to the highway expansion.

In terms of safety, there are no lanes for slowing down to make a left-hand turn across the expanded Highway 29. This concerned residents of Maple Grove who use the highway on a daily basis.

### **Current Development**

One roadside vegetable stand, Johnson's One Farm, expanded along Highway 29 due to better access and visibility. Figure 35 provides a map of the type and location of area businesses.

### **Proposed Development**

One corner at the Highway 29 interchange was re-zoned from Agricultural to Commercial but remains undeveloped at this time. This 3-acre property was purchased for \$275,000.

However, when this land was zoned Agricultural, it would most likely have been sold for \$1,500 to \$2,500 per acre. The Town indicated that the rezoning would not have happened if it were not for the Highway 29 expansion. Figure 36 provides a map of planned development in Maple Grove.

### **Economic Impact of the Highway Improvement**

One major economic concern was splitting farms across the highway. In some cases, the highway expansion made it impossible for farm equipment to cross the highway and access land on both sides of the highway, hence creating less productive farmland than before the expansion. In one case, only \$600 was given for a 3.97-acre loss of farm production.

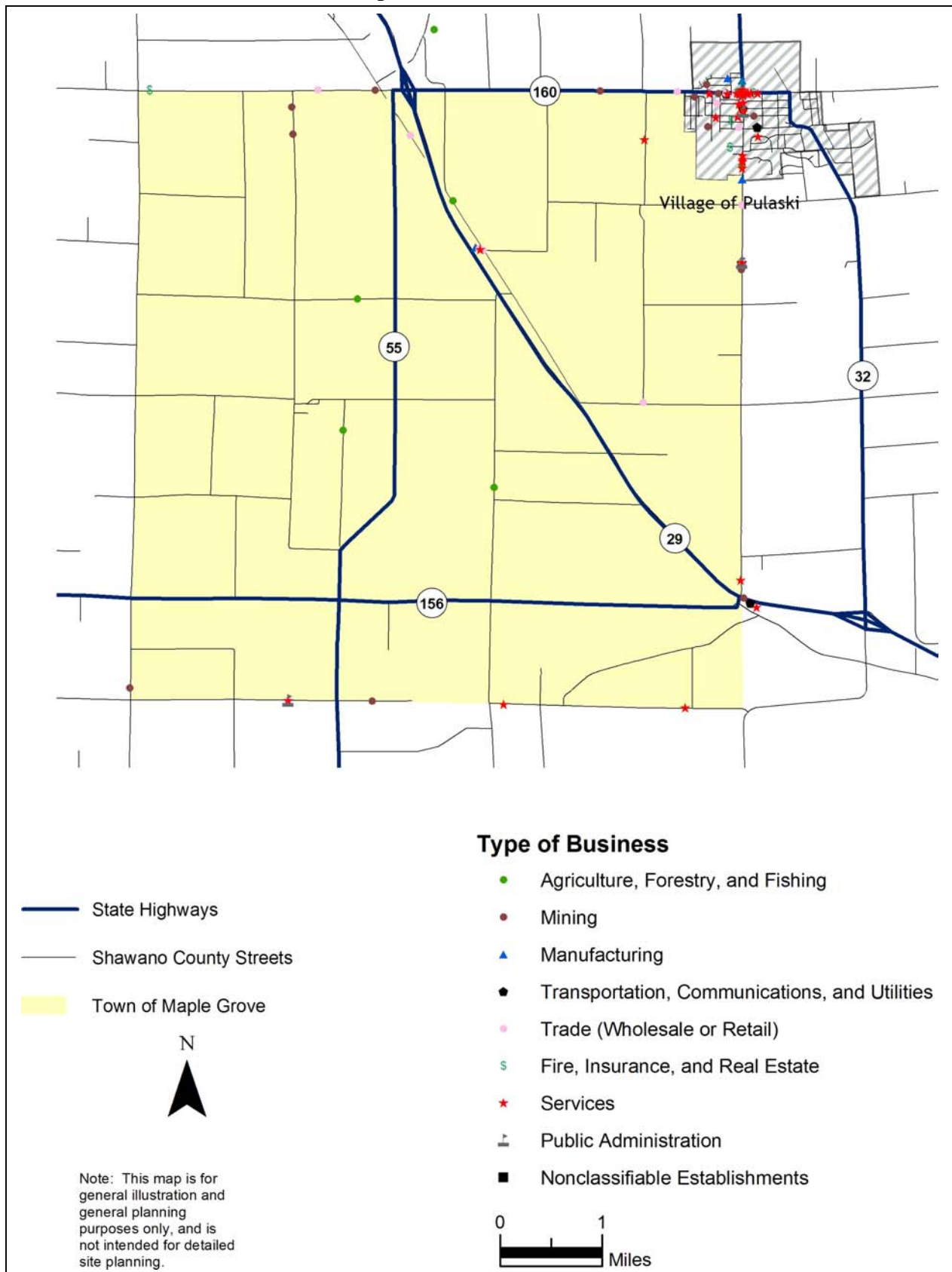
The safety of the highway expansion was a benefit to Laney Cheese factory, the customers and employees of which use the highway daily. Highway 29 has also become safer for school buses and the elderly that use it to access Highway 160 into Pulaski.

To plan for future development, Maple Grove conducted a survey of the landowners on the amount of re-zoning needed in the town. A zoning rating method was developed from this survey.

### **Property Values**

As previously mentioned, the 3-acre property located on the corner of the Highway 29 interchange was purchased for \$275,000, but would have most likely been sold for \$1,500 to \$2,500 per acre when it was zoned Agricultural. The town indicated that the rezoning would not have happened if it were not for the Highway 29 expansion.

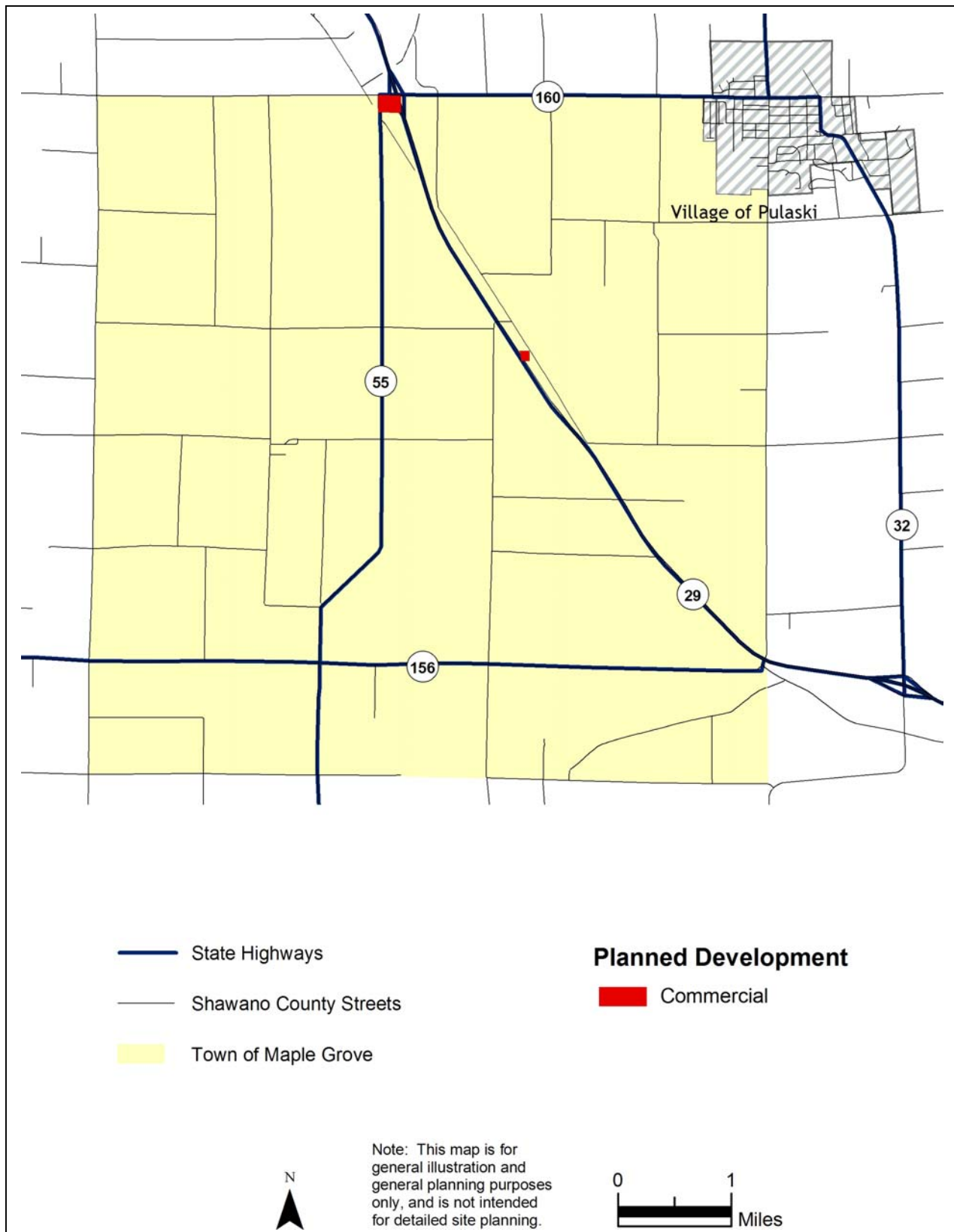
**Figure 35**  
**Town of Maple Grove Businesses**



Approximately 160 businesses are located in the Town of Maple Grove, June 2003.



**Figure 36**  
**Town of Maple Grove**  
**Planned Land Use**



Two very small future commercial areas are illustrated in this map of future Maple Grove development, June 2003.



## **Marathon City**

### **Marathon County**

**Population:** 1,640

**Highway 29 expansion completed:** 1999

Segments east of STH 107 were built earlier as a four-lane.

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*The Village of Marathon City is located off the Highway 29 and Highway 107 interchange. The Village residents are proud of their strong industrial base and the recent draw of new business to the community because of the great access to Highway 29. Interviewed: Village Administrator.*

### **Community Perception of the Highway Improvement**

Everyone was in favor of the four-lane highway because the old two-lane highway was quite hazardous.

### **Current Development**

As a result of the highway expansion, on the north side of the village, an industrial park was created with a TIF district in anticipation of development. Current efforts are directed toward attracting new business to this park.



Marathon Swim Center has something to offer for all ages, from youth swim lessons to adult aerobic classes, March 2003.

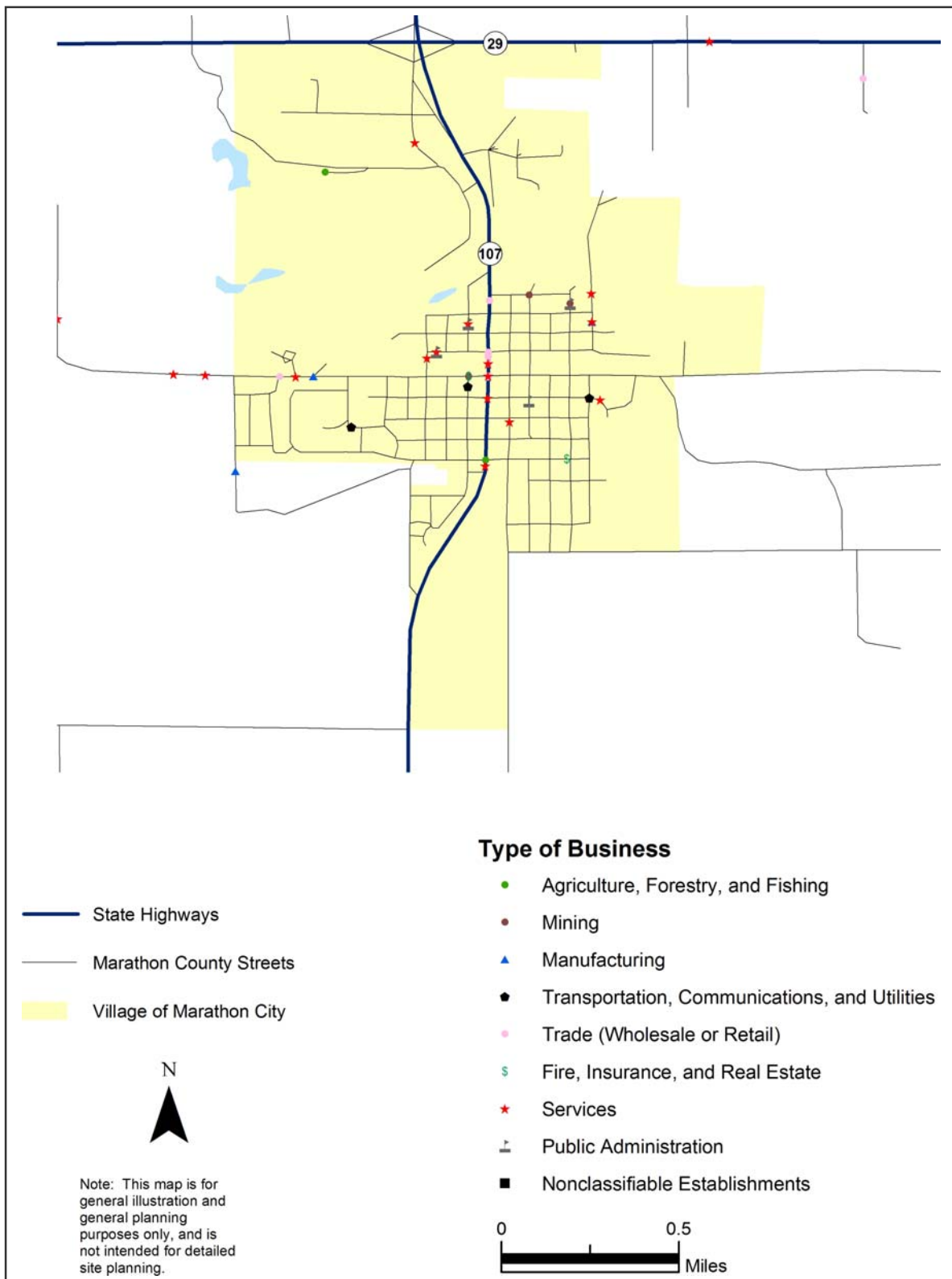


Marathon Cheese Corporation is one of Marathon's largest employers, with approximately 800 employees, March 2003.

A new gas/service station is also planning to locate at the industrial park's interchange. Figure 37 illustrates Marathon City's business locations and types.

No development has occurred as of 2003 because water and sewer have not been available. By the end of 2003, however, there will be a relocation of a manufacturing facility from Wausau into the village's industrial park, combining three facilities under one roof for cost efficiency.

**Figure 37**  
**Village of Marathon City Businesses**



This map shows the type and geographic location of Marathon City's approximately 150 businesses, March 2003.

## Proposed Development

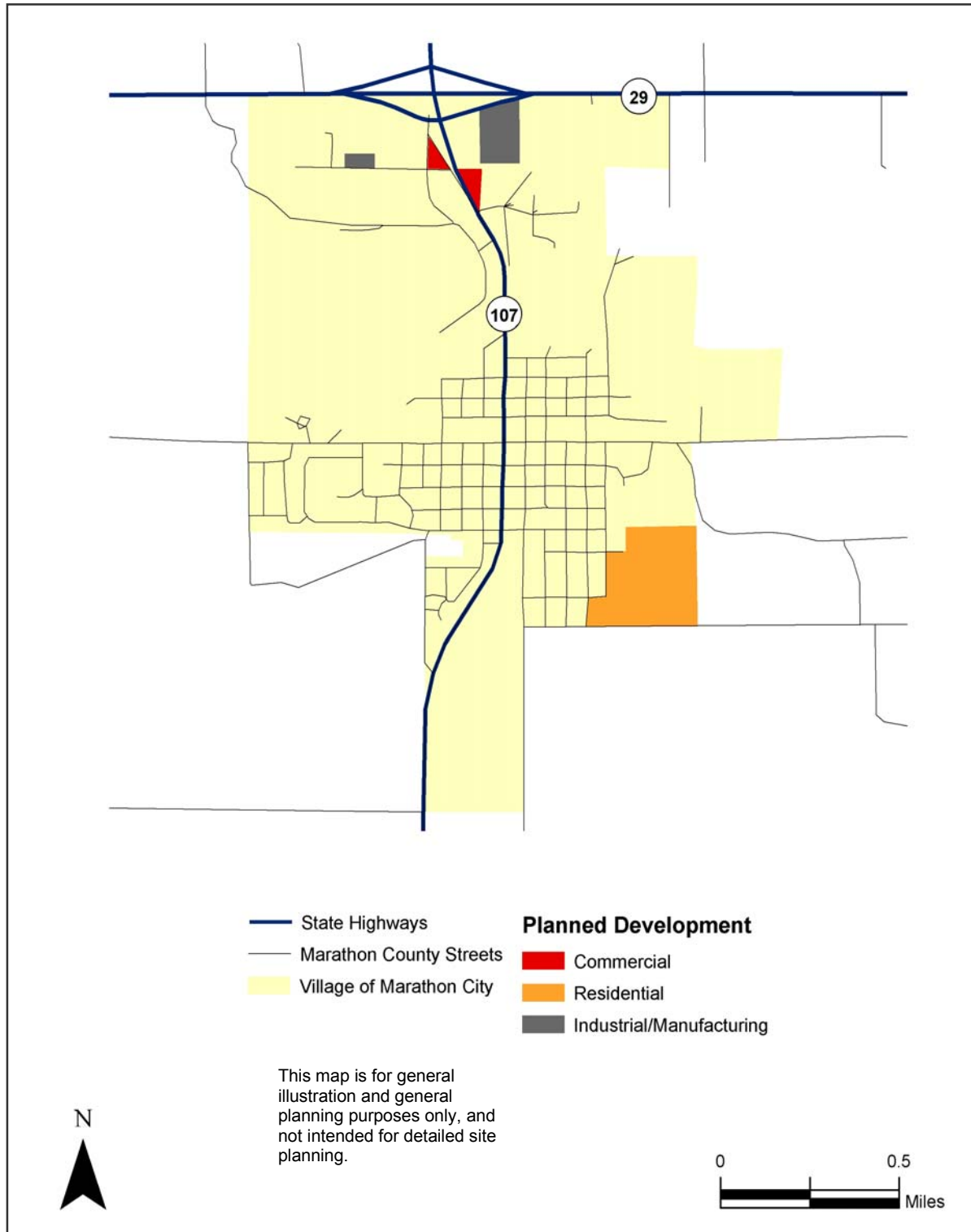
There has been very little planning before the highway expansion. After the expansion, a developer was interested in commercial development in the northeast corner of State Highways 107 and 29. This developer then received a better offer elsewhere and left. In 2002, the Village took on a developer's role and created a TIF district at the intersection, and a manufacturer from Wausau will locate there in November 2003. This manufacturer was attracted by the location's easy access to Highways 29, 107, and county roads.

Figure 38 on the following page illustrates planned development, by type, in Marathon City.



Marathon City residents support and honor the veterans in their community, March 2003.

**Figure 38**  
**Village of Marathon City**  
**Planned Land Use**



This map illustrates future commercial, residential, and industrial/manufacturing development in Marathon City, March 2003.

**Economic Impact of the Highway Improvement**

The value of land in the previously mentioned northern TIF district increased. Rather than agricultural land value, this land is now valued

as industrial/commercial. Once the TIF is paid off, the Village will reap even more benefits from the tax revenues.



## **Oneida**

### **Outagamie County**

**Population:** 4,001

**Highway 29 expansion completed:** 1989

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*The Town of Oneida makes up the entire Outagamie County portion of the Oneida Reservation. A small portion of the town is adjacent to Highway 29. Interviewed: Town Clerk-Treasurer.*

#### **Community Perception of the Highway Improvement**

Thirteen years after the Highway expansion, the Town of Oneida is in the process of planning to reconstruct two at-grade crossings along Highway 29 into interchanges. There is currently a bad access angle to Highway 29 from the local crossroads, creating dangerous intersections because of acceleration problems. Straight crossways of the highway would provide a much easier and safer alignment. The intersection at County Road VV is the most dangerous because of the jagged alignment for crossing Highway 29. County Road U is the next dangerous intersection. Crossing Highway 29 is most difficult for trucks and trailers because they cannot gain enough speed to safely cross.

During the last two months of 2002, homeowners near the highway were concerned about relocation costs associated with these reconstruction plans, specifically regarding the amount of money they would receive for their house so that they could afford to locate elsewhere. Local residents prefer to use Old Highway 32 because it passes underneath Highway 29, providing a much safer crossing experience.

#### **Current Development**

Two new homes were built in the Town of Oneida, but they were not necessarily related to the Highway expansion. In the past two to three years, about 20 new non-tribal homes were built, and in 2003, ten homes were already built at the time of the interview. Residents of these

homes use both Highway 29 and other highways nearby to commute to work. Figure 39 illustrates business types and locations in the Town of Oneida. A map of future Town development plans was not provided.

#### **Economic Impact of the Highway Improvement**

All of the Town of Oneida is considered reservation land. The Town also contains tribal land. The Oneida Tribe often purchases land within the township and does most of the planning.

#### **Property Values**

Economic activity within the Town of Oneida is tribally driven. The value of land is generally \$1,500 - \$1,800 per acre; however, the Oneida tribe is often able to pay more than double these

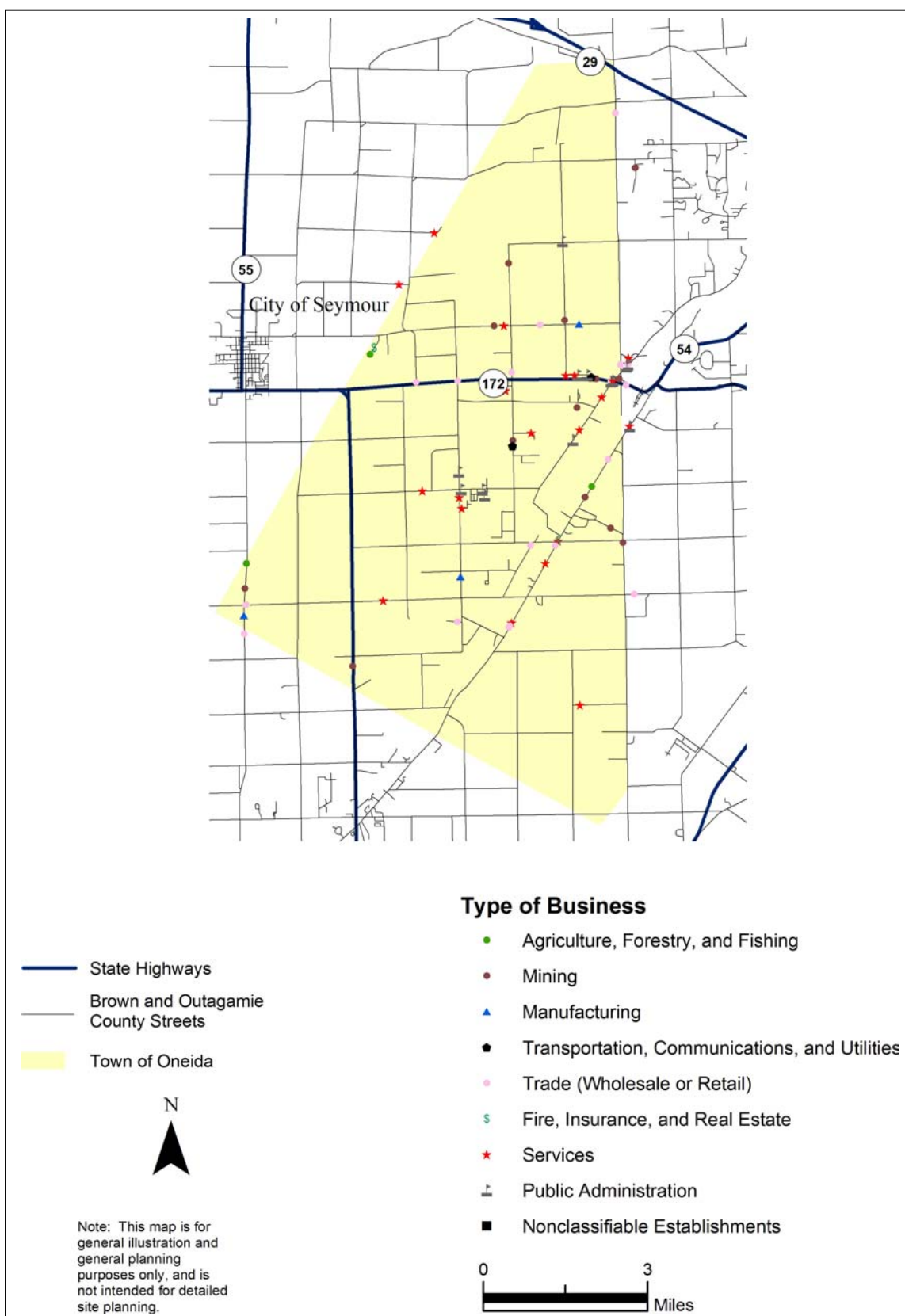


Oneida Casino, located on a connecting road to STH 29, June 2003.

prices for the land because they are trying to obtain more land for the Oneida Nation.



**Figure 39**  
**Town of Oneida Businesses**



A map of the Town of Oneida's approximately 90 businesses, June 2003.





## Owen

### Clark County

Population: 936

Highway 29 expansion completed: 1997

*Located only a mile from the Village of Withee, the welcoming City of Owen provides a natural setting for an array of recreational activities. Visitors and locals enjoy walks along the Popple River, tee time at the local golf course, and picnics in the park. Interviewed: Mayor, Clerk-Treasurer.*

### Community Perception of the Highway Improvement

The consensus in the City of Owen was that the four-lane highway would improve the safety of the corridor. However, the new interchange at County Highway X has made access onto Highway 29 a little more difficult because the alignment of the interchange does not lead directly into the community.



Standing at the edge of Owen, one can see the interchange from a distance, June 2002.

### Proposed Development

There has been a renewed interest in planning and economic development in Owen due to the efforts of several newly elected officials. The City has had trouble attracting businesses to the community because of the location of the interchange. Development prospects that do emerge appear to be highway-oriented businesses.

The City has developed an 11-acre industrial park at the Highway 29 and County Road X interchange. One business has already located in the industrial park, where 10 acres for development remain. The industrial park is included in the City's Tax Incremental Financing (TIF) district. This will enable Owen to provide needed infrastructure for any new prospect locating in the industrial park.

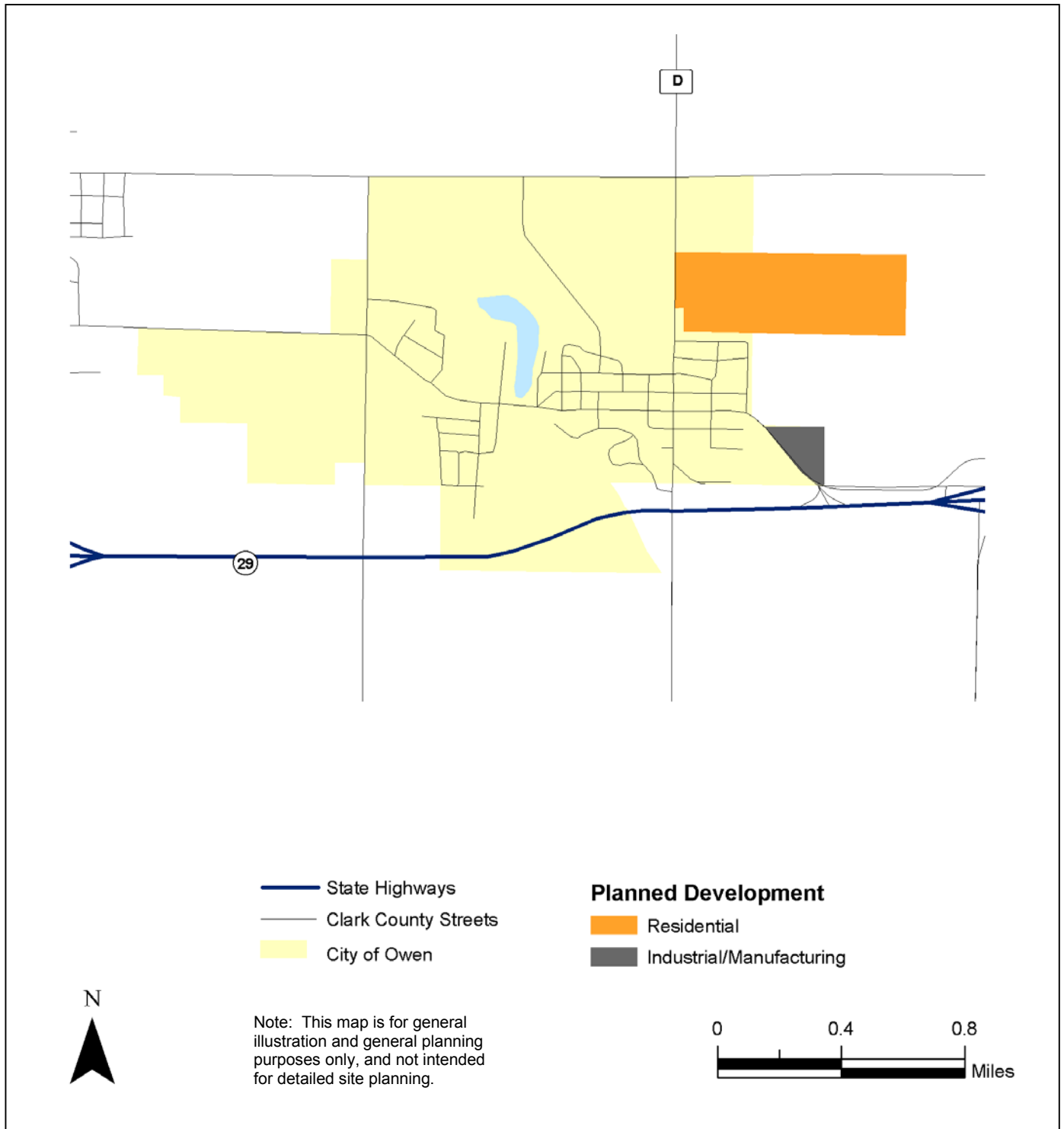
The city's residential area is slowly growing. In the northeast, 120 acres have been designated for residential development in anticipation of the opening of the Stanley prison. The four-lane highway will enable Owen's new residents safer and faster travel times to employment centers in the area.



Owen is a prime location for businesses that need access to both rail and a major highway, June 2002.

The following map illustrates planned land use in Owen.

**Figure 40**  
**City of Owen**  
**Planned Land Use**



The City of Owen is anticipating future development in its industrial park and residential development on its northeast side, June 2002.

## **Economic Impact of the Highway Improvement**

Local officials have noted that the downtown had been steadily declining since the 1980s. It is believed that the new highway expansion has not contributed to this decline. The remaining businesses are putting more effort than before the highway expansion into marketing their establishments.

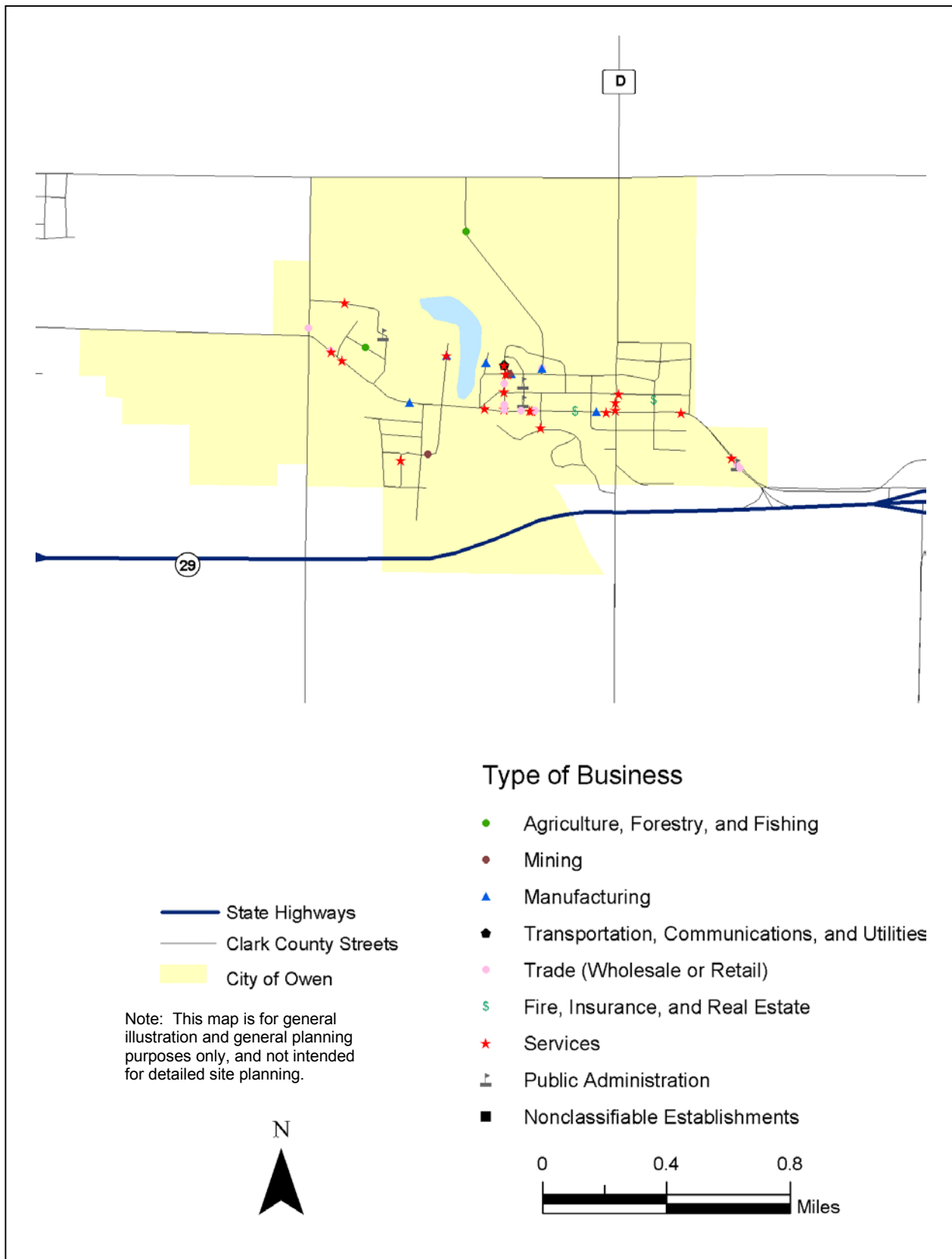


Owen's library, located on the north end of Main Street, June 2002.

The community has advocated designating part of County Road X as a possible business route for Highway 29, to help divert more traffic into the downtown area. The City also believes that signage at the County Road X interchange needs improvement.

Owen has a grocery store, restaurants, and a gas station, all of which would be able to serve more customers during extended business hours. Figure 41 on the following page illustrates the types and locations of businesses in the city.

**Figure 41**  
**City of Owen Businesses**



Owen's over 90 businesses are located mostly north of Highway 29, June 2002.



## **Rib Mountain**

### **Marathon County**

**Population:** 7,556

**Highway 29 expansion completed:** 1960's

*Because of its location off Highway 29/51, the Town of Rib Mountain has a developed retail commercial district that serves residents of the Wausau metro area. Not only does Rib Mountain have great shopping amenities, the town also has many recreation activities for residents and visitors to the area to enjoy, such as skiing, biking, fishing, and more. Interviewed: Town Chairman.*

### **Community Perception of the Highway Improvement**

Highway 29 was completed in the 1960's. The part of the highway contiguous with Highway 51 was done first, after which the eastern part was constructed. The segment from I-39/51 east across the Wisconsin River to Business Highway 51 was completed in 1973. People questioned whether the expansion of the west part (Highway 29/51) was needed and justified as far as traffic volume.

### **Current Development**

All of the development came after 1977. In 1985, sewer and water were installed in the town and the development rate escalated. Most of the present day growth has taken place since then.

A series of commercial malls located in the town. All have to be supplied by trucks, and the highway provides this ability. The first mall in Rib Mountain was Wal-Mart/SAM's Club, which located at the corner of County Road N and Rib Mountain drive around 1991. The last was Barnes & Noble, in 2002. The malls established between 1991 and 2002 resulted from a development "domino-effect". Figure 42 illustrates Rib Mountains businesses.

### **Property Values**

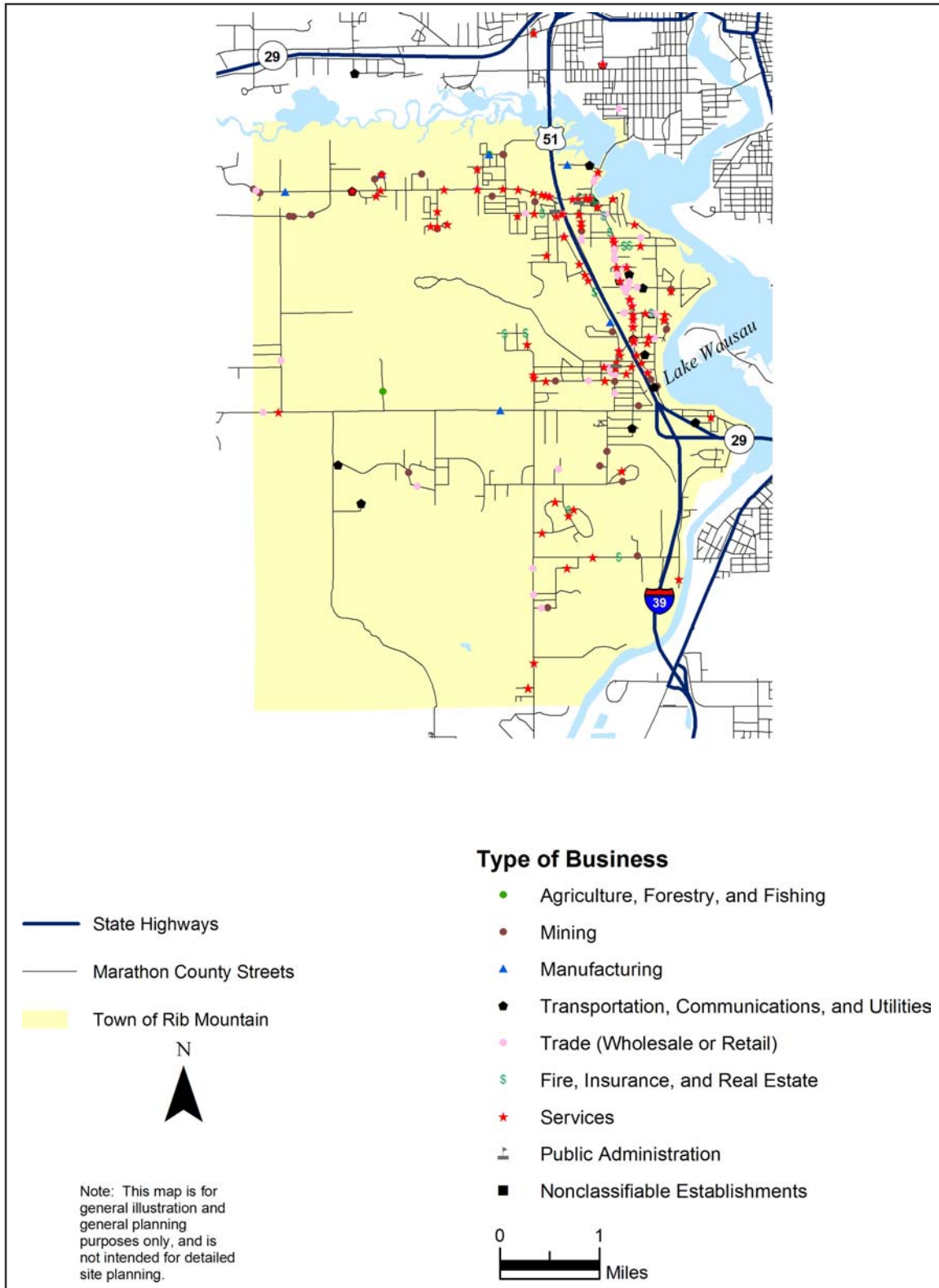
Commercial property values soared over the years. This phenomenon was probably more due to the attraction of other commercial

development rather than the expansion of Highway 29. However, the expanded highway did attract Wal-Mart/SAM's club to the town.



Wal-Mart/SAM's Plaza, Rib Mountain's first mall development, was established at the corner of Rib Mountain Drive and CTH N in 1991, March 2003.

**Figure 42**  
**Town of Rib Mountain Businesses**



Map illustrating the types and locations of Rib Mountain businesses, March 2003.

### **Additional Comments**

In reality, both the expanded highway and the sewer and water infrastructure together impacted Rib Mountain's growth. It is difficult to see the impact of each of these factors separately.

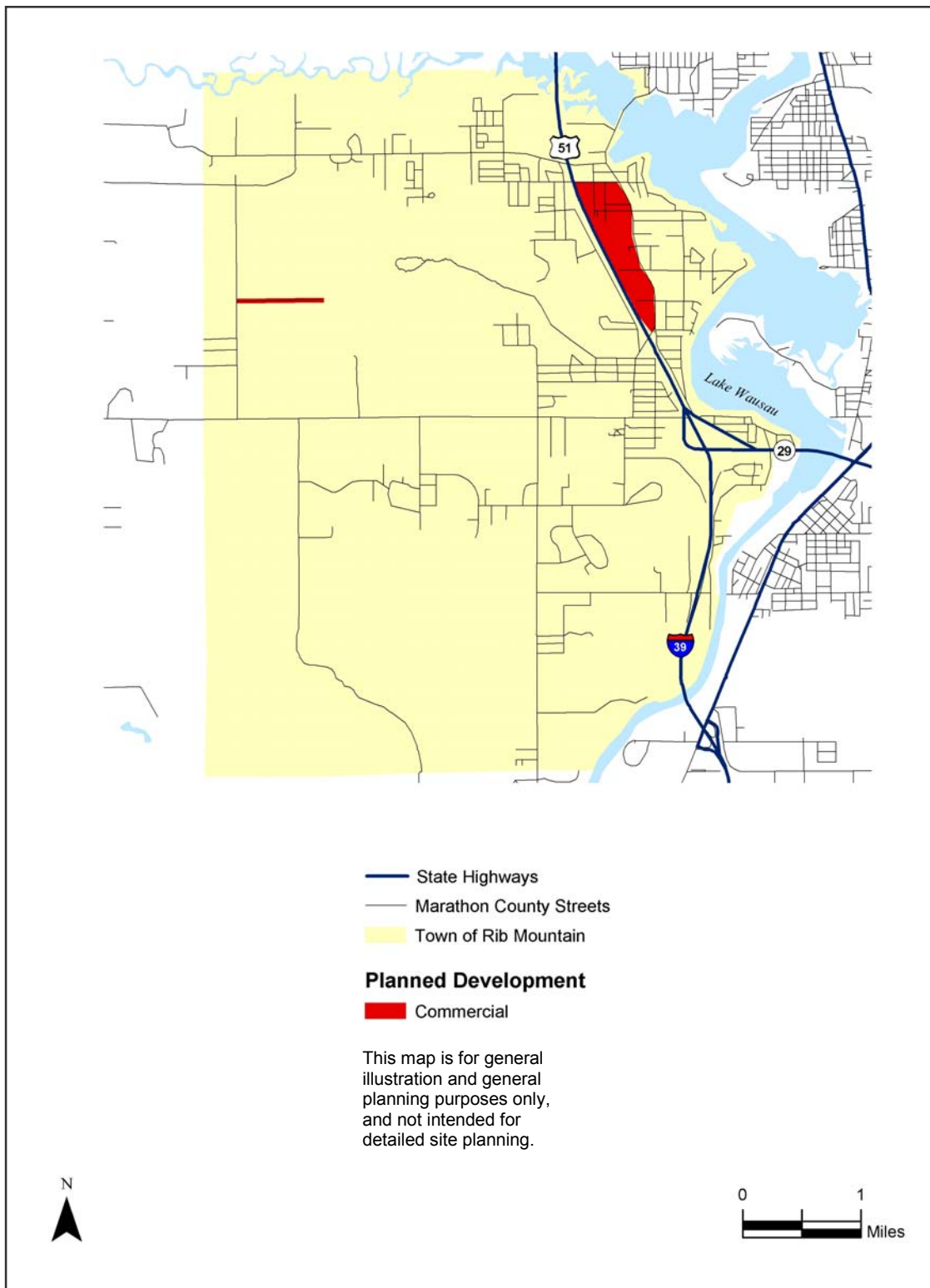


Barnes & Noble located at the north end of the Town of Rib Mountain's commercial corridor in 2002. The chain bookstore is the town's most current development, March 2003.

The town's commercial corridor, Rib Mountain drive, between the County Road N & County Road NN interchanges, has traffic congestion, particularly at the County Road N interchange. Some people felt that County Road N, underneath Highway 29, should have been expanded to four lanes to alleviate the traffic congestion. Figure 43 illustrates planned development in Rib Mountain.



**Figure 43**  
**Town of Rib Mountain**  
**Planned Land Use**



Map illustrating two locations of anticipated commercial development in Rib Mountain, March 2003.





## **Ringle**

### **Marathon County**

**Population:** 1,408

**Highway 29 expansion completed:**

Business Highway 51 to Ringle  
built as a four-lane: 1991  
Ringle to Hatley: 1995

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*Formerly a brick producing and dairy community, the quiet bedroom town of Ringle borders the towns of Weston and Norrie on the west and east, respectively. Interviewed: Chairman of Town Planning Commission.*

### **Community Perception of the Highway Improvement**



A view of the OLD Highway 29, built even before the current "Old Highway 29". The town post office is located on the right, April 2003.

The community expected the highway to bring new business to the area.

### **Current Development**

Riverside, a residential development with a school, at Ringle's Western edge has seen a

marked increase in size since the highway's expansion.

Drew Well drilling came to town in 2000 as a result of the improved access from the new highway. In 2001, a farm machinery and tractor repair facility was established at the County Road Q/Highway 29 intersection. Burgoyne Toilet Rental Services, supplying Port-O-Potties to the entire state also moved to Ringle from Weston. The firm was getting crowded in their previous area.

A lumber and building sales business is being built at the intersection of County Road Q and Ringle Avenue. Figures 44 and 45 illustrate the locations and types of existing businesses and future development, respectively, in Ringle.

### **Proposed Development**

The Town's planning commission has existed for 30 years. The Town's first plan was adopted in 1975. It was updated and revised several times. The Town has seen a marked increase in planning, probably due to the Smart Growth movement.



Formerly a railroad until the 1980s, the Mountain Bay Trail, running through Ringle, is now a recreational trail, April 2003.

A new residential development, with twenty large-lot parcels is being laid out one-half mile west of Ringle, on Ringle Avenue.

In the spring of 2003, a go-cart racing track is planned at the southwest quadrant of the County Road Q/Highway 29 intersection.

### **Property Values**

Property values in the town have increased by at least 50% due to the highway's proximity.

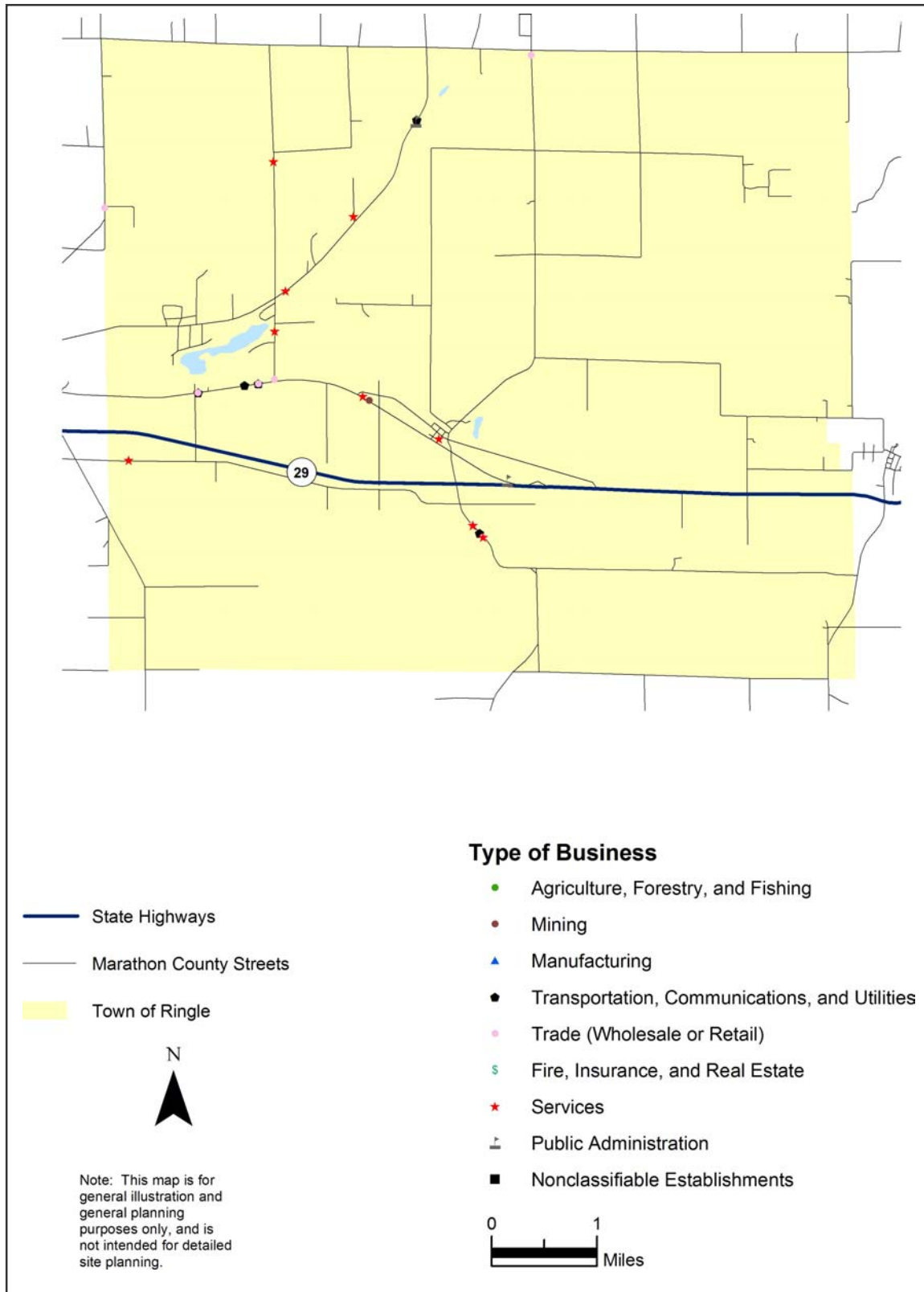
### **Additional Comments**

Ringle is primarily agricultural. The town's future is uncertain, however, future possibilities look bright with the prospects of industry relocating to the area.

### Notes:

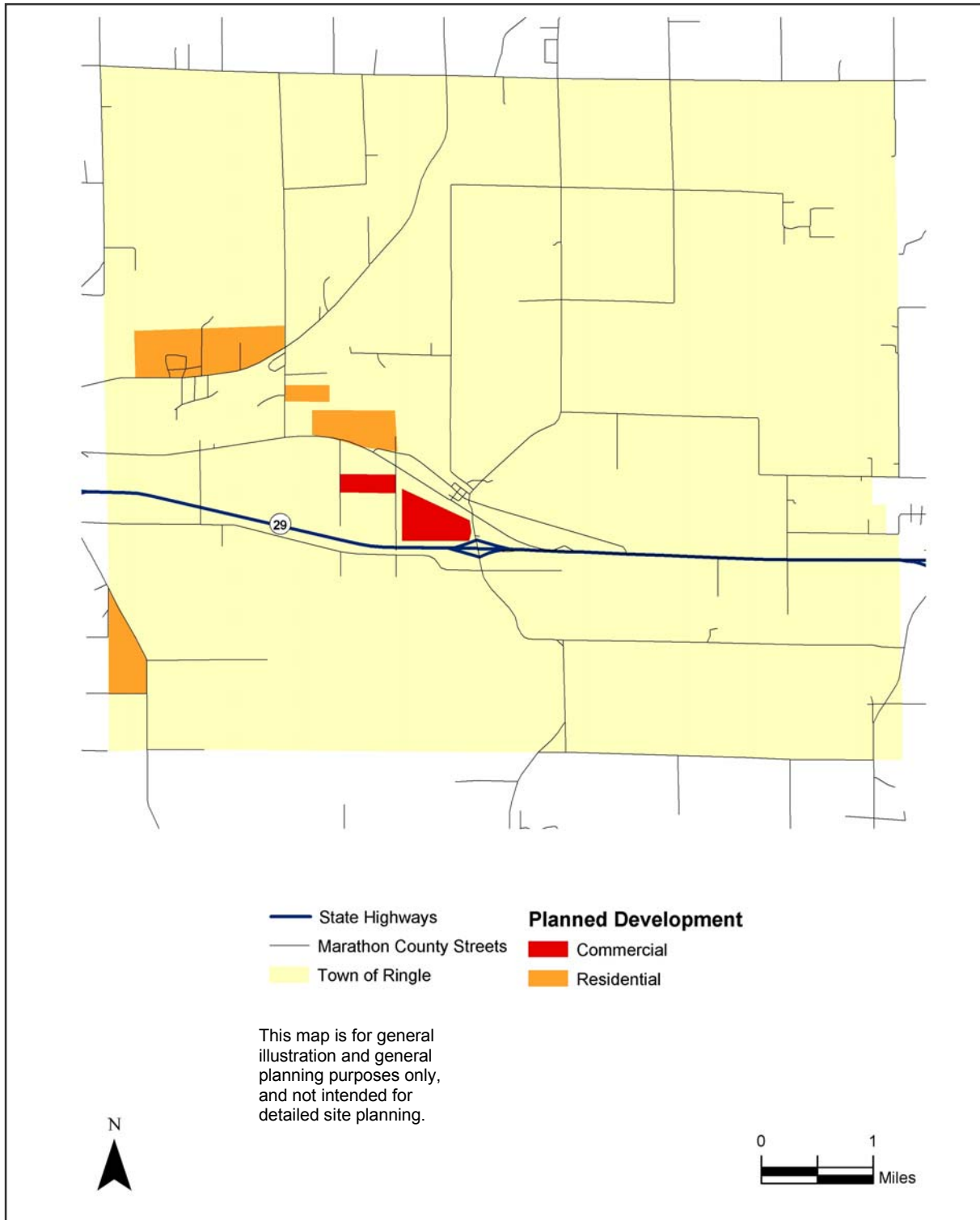
- Some of the land in Ringle is wetland, which is not prime for development.
- A spillover of Weston's Hospital-related development is expected into Ringle.

**Figure 44**  
**Town of Ringle Businesses**



A map of the location and types of businesses in Ringle, April 2003.

**Figure 45**  
**Town of Ringle**  
**Planned Land Use**



Several commercial and residential developments are planned in the Town of Ringle and are shown in this map, April 2003.



## **Rothschild**

### **Marathon County**

**Population:** 4,981

**Highway 29 expansion completed:** The segment from I-39/51 east across the Wisconsin River to Bus. Hwy. 51 was completed in 1969. The segment east of Bus. Hwy 51 was built in the late 1980's.

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*Located just south of Wausau, Rothschild is a community with great economic diversity across industry sectors. The community has access to three highways, Highway 29, Business Highway 51, and Interstate Highway 39. Interviewed: Administrator of Public Works-Zoning Administrator.*



The Rothschild Village Hall contains a regional library for the Wausau Metropolitan Area, the Rothschild Police Department, administrative offices, a community room used by all, and the Village Board Room/Court Room, March 2003.

### **Community Perception of the Highway Improvement**

There were no issues or concerns from the public within the Village of Rothschild about the highway corridor itself. However, until the segment east of Business Highway 51 was completed, there were concerns regarding traffic congestion on Business Highway 51 in the Village of Rothschild, particularly at the on-ramp for Highway 29 west.

### **Current Development**

Land in the vicinity of the Highway 29/Business 51 interchange was fully developed at the time the highway went through. Therefore, the highway has had very little impact on the Village of Rothschild in that regard. Existing businesses are shown in Figure 46.

## **Economic Impact of the Highway Improvement**

The southwest quadrant of the village (Exit 185 off I-39/51) is a rapidly developing commercial and industrial area and a Tax Increment Finance (TIF) district, formed in 1992. This development is not, however, related to the Highway 29 expansion. In general, the improvement of Highway 29 did not increase developers' interest in the Village of Rothschild.

The Village of Rothschild has had a municipal zoning ordinance and zoning maps since approximately the 1940's. The most recent comprehensive planning effort was the adoption of a plan in August 2000. This plan was not the result of the Highway 29 expansion, but rather of the need to update the Village's municipal code. Figure 47 illustrates Rothschild's planned land use.

## **Additional Comments**

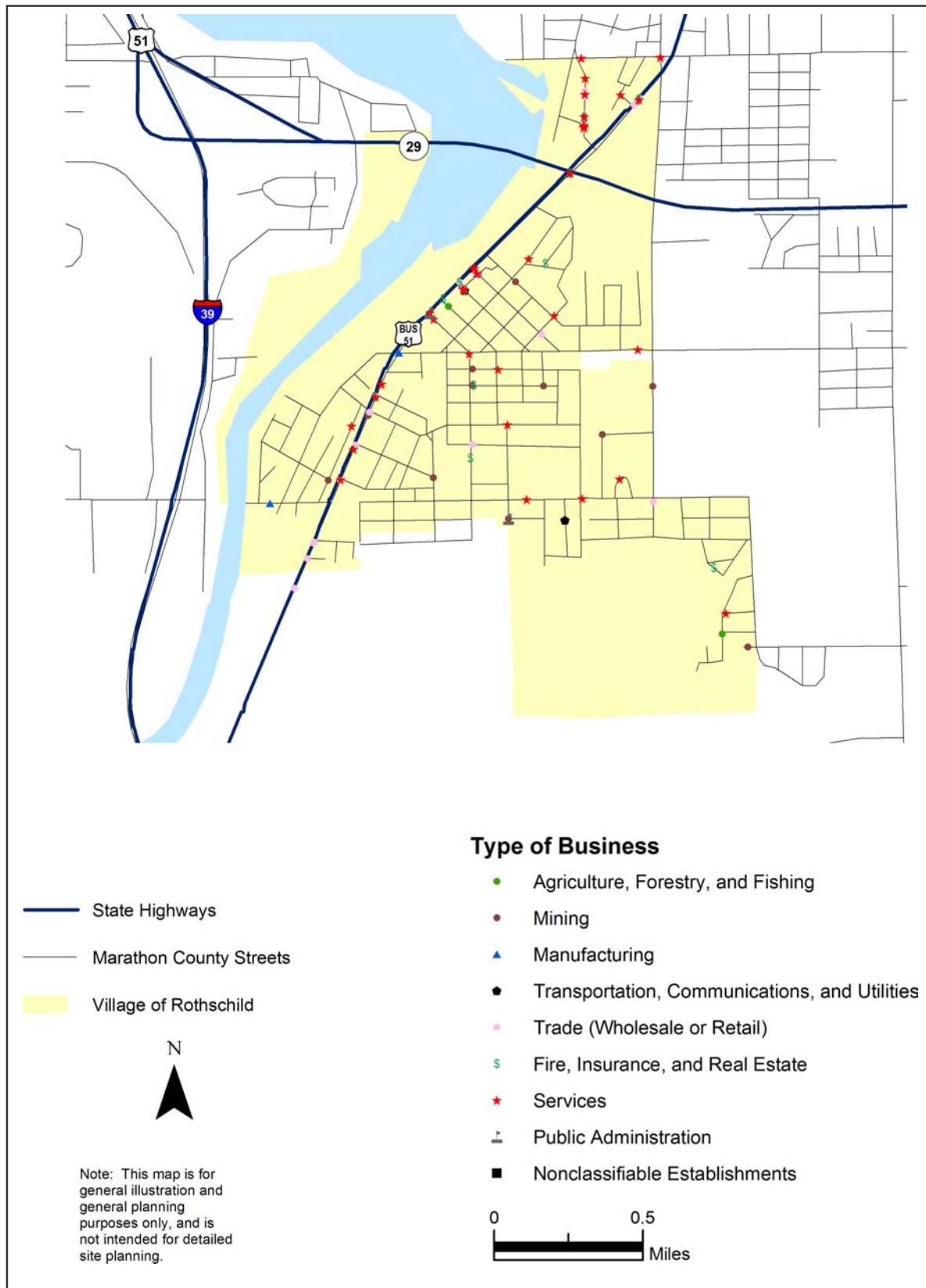
Overall, the Highway 29 expansion has not really affected development in the Village of Rothschild.



Wausau Tile, a flooring and ceramics company located on Business Highway 51 relies on Highways 29 and 39 for shipping, March 2003.

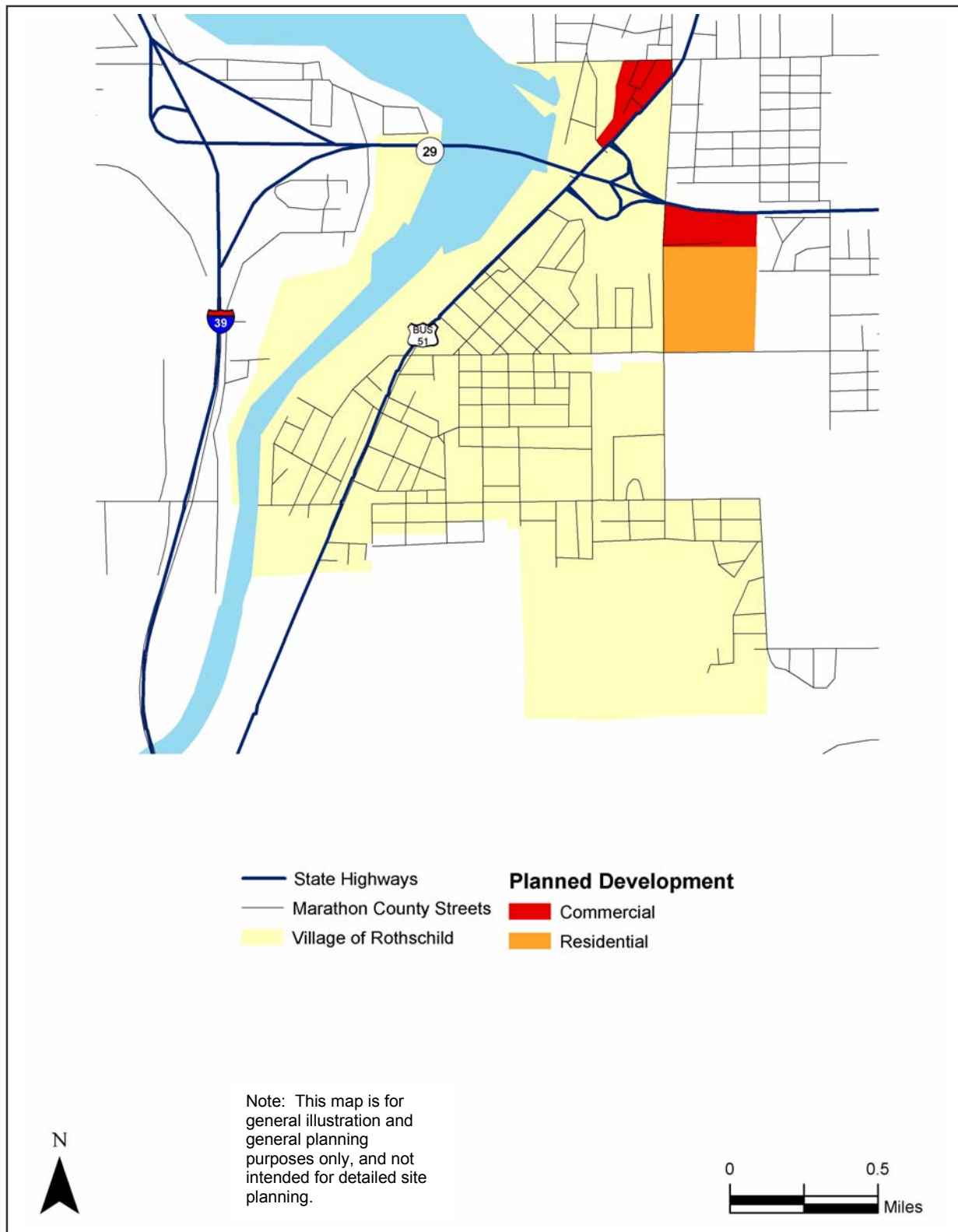


**Figure 46**  
**City of Rothschild Businesses**



A map of Rothschild businesses, classified by type, March 2003.

**Figure 47**  
**City of Rothschild**  
**Planned Land Use**



A map of Rothschild's future land use, March 2003.





## **Schofield**

### **Marathon County**

**Population:** 2,117

**Highway 29 expansion completed:**

I-39/51 east to Business Highway 51: 1973

East of Business Highway 51: 1990

*The City of Schofield is an area of heavy tourism. Most of the establishments are manufacturing and commercial. By day, Schofield's population reaches 10,000. By nighttime, nonresident workers leave the city and 2,000 residents remain. Interviewed: Executive Director of Marathon County Chamber of Commerce, Schofield Mayor.*

### **Community Perception of the Highway Improvement**

The segment from I-39/51 east across the Wisconsin River to Business Highway 51 was completed in 1973 and the segment east of Business Highway 51 was built in 1990. At the time, businesses located on Old Highway 29 (which ran from Business Highway 51 to Schofield Ave.) were concerned about business losses. There were, however, no actual business losses. In fact, the highway expansion helped control downtown traffic flow, which was previously too high, hence making the trip downtown much safer and more convenient.

### **Current Development**

Since the 1980's, at the intersection of Old Highway 29 and Business Highway 51, there was commercial and multi-family residential development, including The Log Cabin Restaurant, Metro Center, a multi-use



At the intersection of Old Highway 29 and USH 51 is the Metro Business Center and other commercial and residential establishments, developed in the 1980s partly because of the STH 29 expansion, March 2003.



The STH 29 expansion contributed to the development of Schofield's Industrial Park, the location of Merrill Iron & Steel, pictured above, March 2003.

development, and a multi-family housing project. Target and a hardware store also located in the area. In addition, the expanded highway contributed to the development of Schofield Business Park. In the 1990's, a road was built to provide direct access into this business park from Highway 29.

### **Proposed Development**

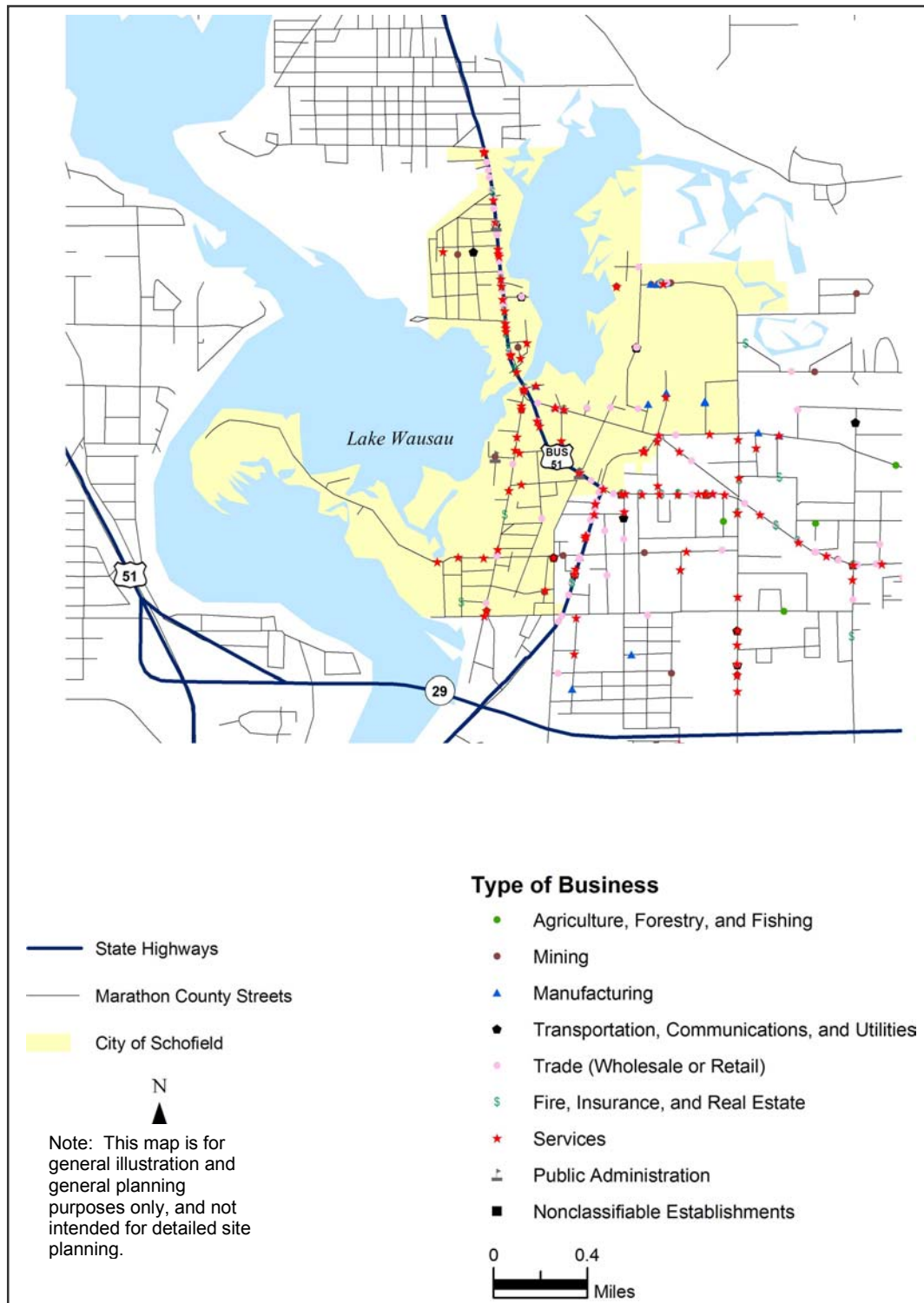
The city is currently built up with no vacant property. Schofield is land-locked by Weston, Wausau, Rothschild, and Rib Mountain; communities that have been impacted by the Highway 29 expansion. However, topographic factors in the metropolitan area, such as mountains, the Wisconsin River, rotten granite, wetlands, and old riverbeds have rendered much of the area's land undevelopable. Figures 48 and 49 illustrate existing businesses and planned land use in Schofield, respectively.

## Property Values

Although there has been no recent development

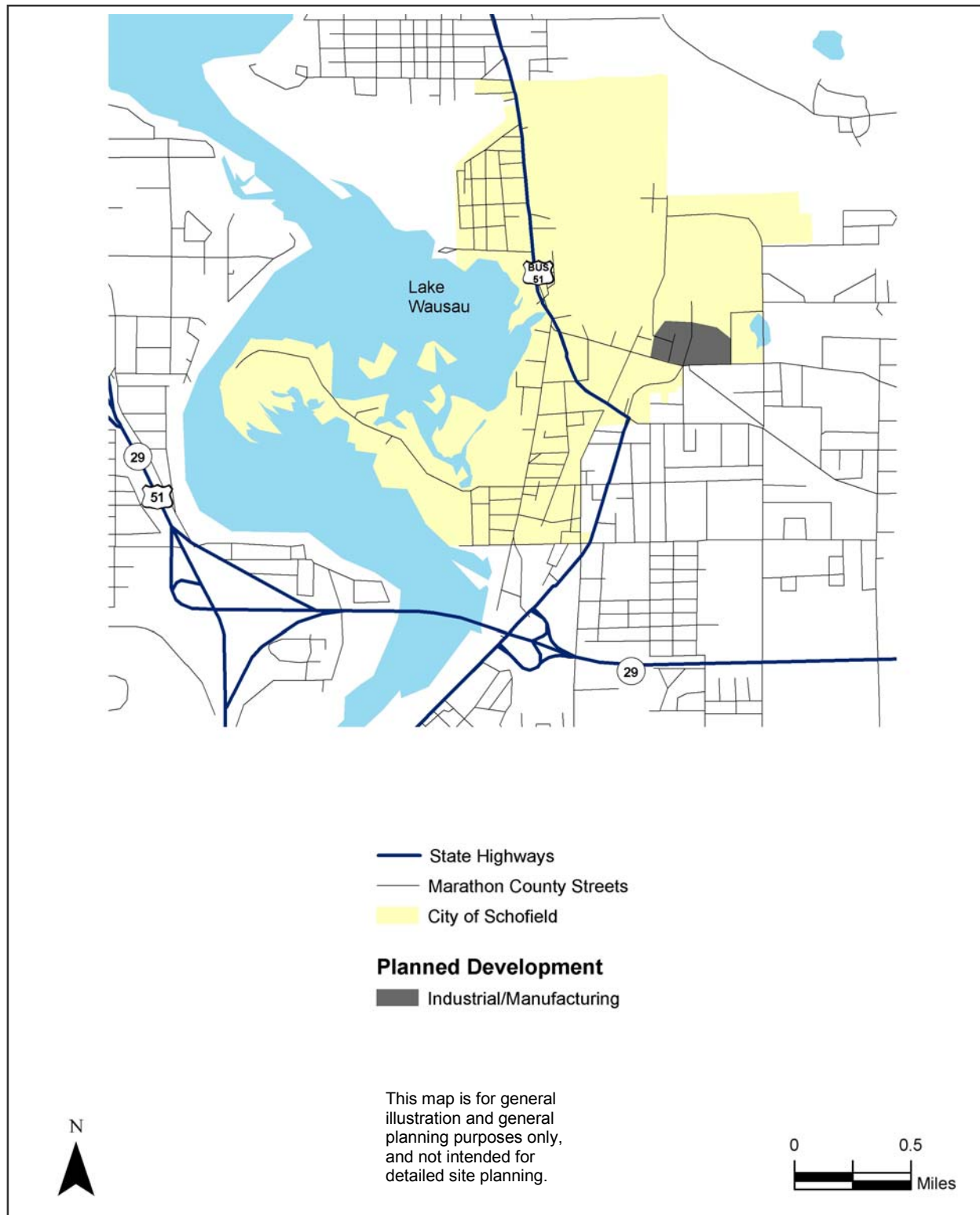
near the highway, property values have risen substantially.

**Figure 48**  
**City of Schofield Businesses**



The locations and types of Schofield's businesses, March 2003.

**Figure 49**  
**City of Schofield**  
**Planned Land Use**



Future industrial or manufacturing development, indicated in gray, is likely in Schofield's Industrial Park, March 2003.



## **Shawano**

### **Shawano County**

**Population:** 8,298

**Highway 29 expansion completed:** 1998

*Shawano is located in north central Wisconsin, just off Highway 29. Shawano's Main Street boasts of hometown hospitality in a historic downtown setting, surrounded with many unique shops and statues honoring the city's history. The city is also home of the "Theatre in the Woods" and the Shawano Area Ski Sharks, a local water ski team that performs at the Wolf River Beach during the summer.*

Interviewed: City Administrator, City Assessor & Zoning Administrator.

### **Community Perception of the Highway Improvement**

Issues that arose were:

- Will traffic be diverted from the downtown and result in fewer shoppers?
- Will the new highway destroy residential neighborhoods?

- Super Walmart
- Walgreens
- Aldi Supermarket
- First Northern Savings and Loans

Figure 50 illustrates existing businesses in Shawano.

### **Current Development**

The new highway is outside the city limits and most of the development occurred outside the city as well. The following development has taken place after the new highway's construction:

- In 1999, a high school opened on Main Street
- Bay Lakes Industrial Park
- A Shell gas station with an Arby's located southwest of the STH 22/STH 29 intersection
- A ski center (northeast of the Highway 22/Highway 29 intersection)
- A dog-care center (northeast of the Highway 22/Highway 29 intersection)

As a result of the Highway 29 expansion, due to the removal of trucks from this road, there has also been increased commercial development and expansion along the old Highway 29 (Green Bay St.) including:

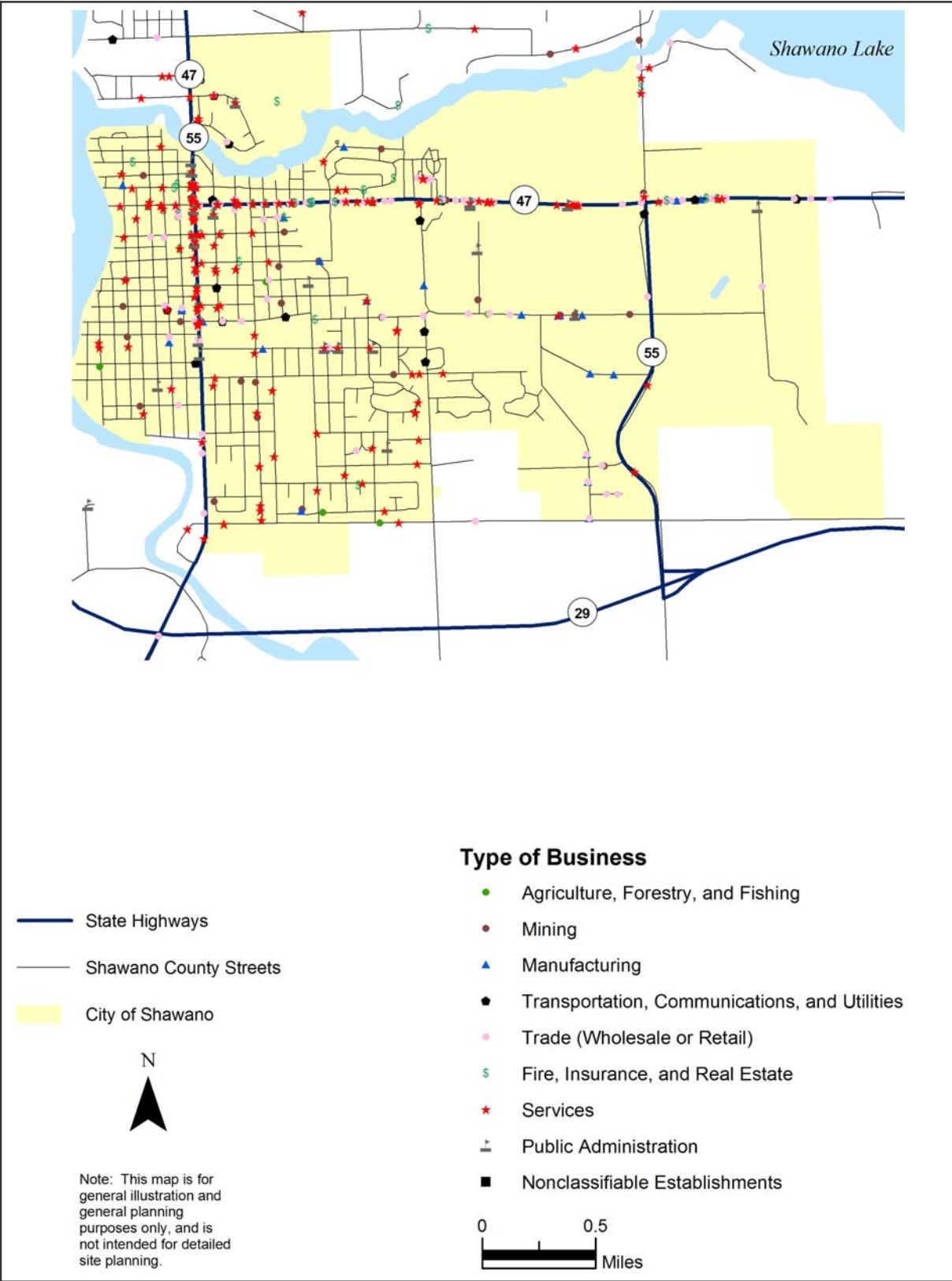


Bay Lakes Cooperative, one of two business located in Bay Lakes Industrial Park after the new highway, May 2003.

The housing industry has remained stable. After the highway expansion, there has been significant growth in multifamily housing because of the increased ease of living in Shawano while working in Green Bay.



**Figure 50**  
**City of Shawano Businesses**



There are over 900 businesses in Shawano, as illustrated in the above map, May 2003.

### **Proposed Development**

The City is applying for a Smart Growth grant in November 2003. It will work on a joint plan with Shawano County.

Two TIF districts were established, one along State Street and one in the city's southeast corner.

Along the Wolf River, on the city's southwest side, there is a redevelopment plan for the conversion of an old concrete mixing plant into housing. Figure 51 illustrates planned land use in Shawano.

### **Economic Impact of the Highway Improvement**

The city believes that the very recent creation of Bay Lakes Industrial Park was probably attributed to the new highway. Bay Lakes Cooperative (one of the only two business located in it) was probably attracted to the park due to the new highway. The new highway also probably stimulated the proposed mixed-use development at its intersection with Airport Road.

There have been several negative economic impacts due to the Highway 29 expansion. On Old Highway 29, east of Airport Road, a restaurant has shut down. In addition, a modular homes seller relocated from Old Highway 29 to an area designated for future commercial development, south of Highway 29, just west of Pit Road.

There has been uncontrolled, unplanned development south of Shawano, both north and south of the expanded Highway 29. The City of Shawano feels there could be better and higher uses for this property than its current use by the townships. It was suggested that WisDOT should require township neighborhood plans for interchanges before their construction.

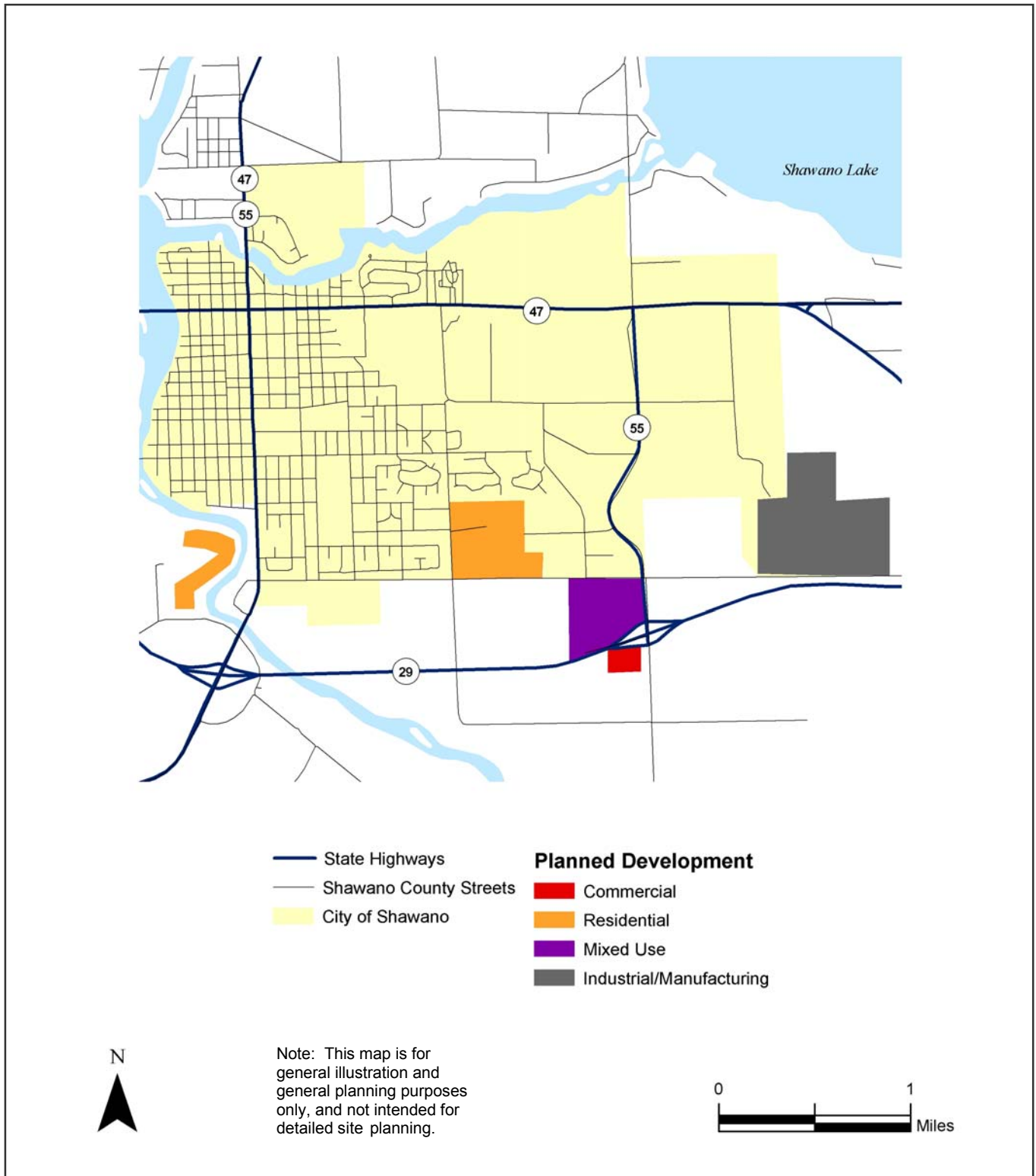
### **Property Values**

Property values have increased, particularly at intersections. Large vacant lots of land outside the city have increased in value.



A Shell station containing Arby's restaurant located southwest of the STH 22/29 intersection after the highway expansion, May 2003.

**Figure 51**  
**City of Shawano**  
**Planned Land Use**



Future development is planned primarily in south Shawano, particularly around the STH 29/55 intersection, May 2003.

## **Additional Comments**

Traffic volumes on Airport Drive have increased because the highway expansion has provided an opportunity for casino-bound traffic to take a shortcut north onto Airport Drive.

In a survey conducted by the Shawano Main Street Association shortly after the highway expansion was completed, downtown merchants reported that there was an increase in traffic and retail sales were up.

A Business Improvement District, where an area's property owners are taxed at a slightly higher rate to pay for streetscaping, tourism-oriented, and other aesthetic street improvements has also been established along Main Street.

The trend of living in Shawano while working in the Green Bay area has increased. In the 1990 census, about 14% of Shawano's population worked in the Green Bay area (Brown and Outagamie Counties). The 2000 census shows that by 2002, the proportion of Shawano's residents working in the Green Bay area rose to 19%.





## **Stanley** **Chippewa County**

**Population:** 2,000

**Highway 29 expansion completed:** 1994

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*Located at the interchange of Highway 29 and County Road H, Stanley is a rapidly growing city offering a multitude of recreational opportunities. With four parks, a fitness center with an indoor swimming pool, and a skating rink there are enough facilities in Stanley to satisfy the entire family. Interviewed: Mayor.*

### **Community Perception of the Highway Improvement**

There were some concerns that the expanded highway would take customers away from the Main Street businesses. Some residents in the community also expressed concern that municipal development funds would be diverted to businesses along the Highway 29 corridor. The mayor, however, felt that these concerns were unfounded.

Another issue of concern involved highway right-of-way purchases by WisDOT. At first, some property owners felt that the price WisDOT offered was too low, however, these issues were settled later. In addition, often for nostalgic reasons, former Stanley residents were against taking farmland out of production.



Stanley's ethanol plant was the first large-scale ethanol plant in Wisconsin, May 2002.

There was a desire for the highway expansion because it was expected to improve:

- safety and provide better passing ability,
- speed
- accessibility and travel times.

## Current Development

After Highway 29 was expanded, there has been a significant amount of development along the highway in Stanley. Most of the new businesses were small and were attracted to the community because of the expanded highway. The new prison, the hospital, and the ethanol plant have stimulated other development in the city. The following are businesses that were established or expanded after the four-lane expansion:

- Super 8 Motel
- A&W Restaurant
- floral shop and garden center
- used car dealerships

Pending Development includes:

- new church
- archery-shooting range
- storage sheds
- construction firm (earthmoving establishment)
- truck Stop
- convenience Store
- car wash
- fast-food restaurant
- plant nursery
- 1,500-person prison expected to open soon (September 2002), creating 405 new jobs
- hospital including a clinic and an outpatient facility, expected to open in November 2003
- diesel repair business

- ethanol processing plant (ACE Ethanol), the first large ethanol plant in Wisconsin, expected to create 30 new jobs. It is also expected that over 600 grain trucks each month will be entering this facility.

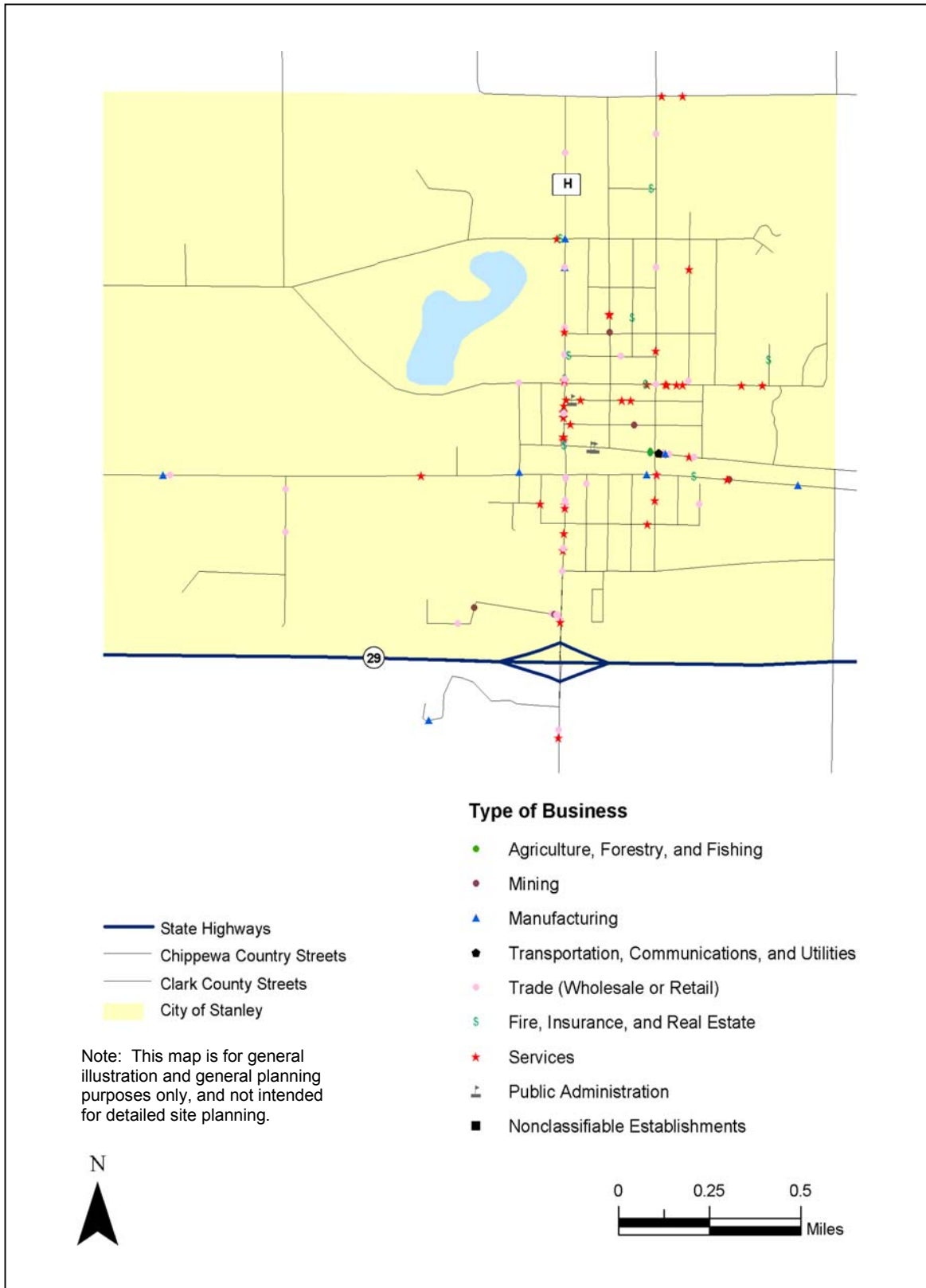
Since the first draft of this report, the ethanol plant opened in June 2002 and announced that it will double its output with construction that will take place in 2003.

The following map illustrates the location and types of Stanley's various businesses.



A close-up view of the Stanley prison from Highway 29, May 2002.

**Figure 52**  
**City of Stanley Businesses**



Map showing Stanley's business establishments, most of which are in the Service industry, May 2002.

## Proposed Development



Just like in the “good ol’ days”, Stanley has a downtown movie theatre that is still in operation, May 2002.

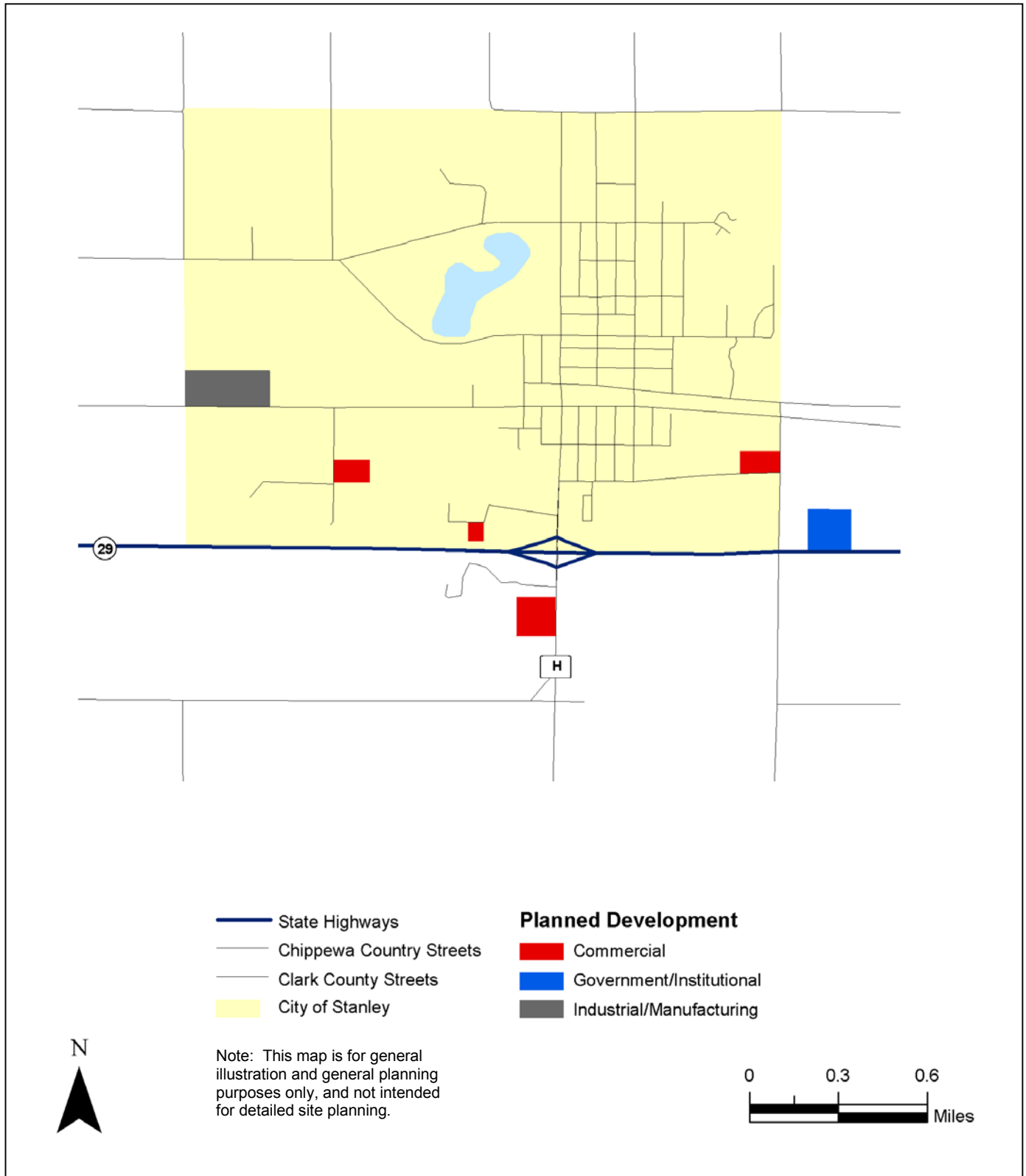
The City of Stanley is a member of the Chippewa County Economic Development Corporation and has a representative on the corporation’s board. The City also has zoning, but lacks an official land-use plan at this time.

The only recent land-use action taken by the City was the purchase of a 220-acre farm. Approximately 100 acres of this land were annexed by the City and will most likely be zoned for residential, institutional, or retail development. A new hospital will also be built on the site.

Another farm of 200 acres was recently purchased by the City and will most likely be zoned industrial.

The following map illustrates planned land use in Stanley.

**Figure 53**  
**City of Stanley**  
**Planned Land Use**



Planned development in Stanley includes a hospital, expansion of the existing ethanol plant, and several commercial establishments, May 2002.

**Economic Impact of the Highway Improvement**

After the completion of the expanded highway, some property owners have raised land prices above the current market value. The higher prices may have stifled some of the economic growth along the highway.

**Property Values**

Agricultural land along Highway 29 has increased in value from \$1,000/acre to \$2,800/acre to \$5,000/acre since Highway 29 expanded to four-lanes. Mennonites from Pennsylvania have been migrating into the area and are often competing with the City in the purchasing of land.



## **Thorp**

### **Clark County**

**Population:** 1,536

**Highway 29 expansion completed:** 1994

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*The City of Thorp is located at the interchange of Highway 29, Highway 73, and County Highway M. Residents and visitors of Thorp enjoy many parks, volleyball courts, and a bowling alley. The city is located half way between Green Bay and the Twin Cities, in an area of gently rolling farmland.*

*Interviewed: President, Thorp Area Development Corporation, Owner/Broker, Thorp Sales, LLC.*

### **Community Perception of the Highway Improvement**

There was some concern that downtown businesses would lose market share to the regional shopping centers. There was also speculation that as more people commute from Thorp to jobs outside the community; these commuters would also shop in those communities, closer to their places of employment.

Safety of Old Highway 29 was also a significant concern. The community felt that the expanded highway is much safer than the original two-lane highway.

### **Current Development**

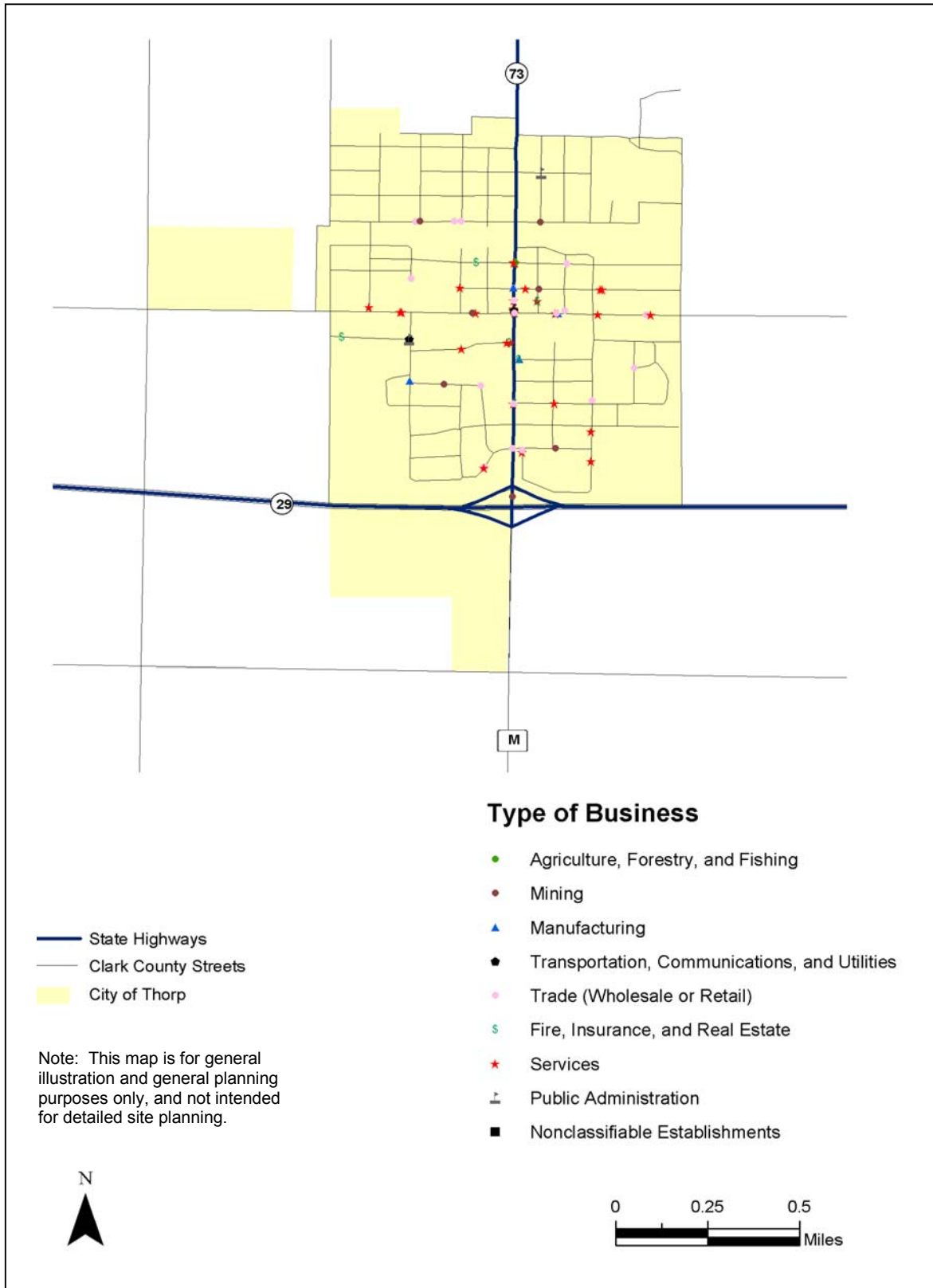
There has been a substantial amount of development in Thorp at the time of the completion of the four-lane highway. Near the Thorp interchange, a new 50-unit motel replaced an older 12-unit motel. A gas station was also upgraded to include a McDonalds Express. In the past year, local housing developers obtained a low interest loan from the Wisconsin Housing and Economic Development Authority to construct two new homes in the community.



A cemetery in Thorp resides next to the occupied business park, May 2002.

The following map illustrates the types and locations of businesses in Thorp.

**Figure 54**  
**City of Thorp Businesses**



Map showing Thorp's business establishments, May 2002.



## Proposed Development

The City of Thorp has been active in creating five Tax Incremental Financing (TIF) districts to help finance public infrastructure improvements and support private investment in industrial parks.

There is a new industrial park on the city's northwest side, with about 66 acres available for development with rail access. Two assisted-care living facilities have been developed in the southeast portion of this property. There is another 100 acres of private land prime for development in the southwest quadrant of the interchange. This land has excellent visibility from the improved highway and TIF funds would be available to help develop the site, depending on the types of businesses locating in the industrial park.

In the center of the city, 13 acres of land have been designated for residential development. This development is directly related to the anticipated housing demand from the new Stanley prison.

Recent interest by developers to bring business into Thorp has increased substantially. The opportunity to develop with direct access to Highway 29 has particularly sparked developers' interest in the following types of businesses:

- hotel
- restaurant
- truck stop
- grocery store
- antique mall
- distribution center.

At various points in time, these businesses had expressed an interest in locating in the 100 acres of private land in the southwest quadrant of the Highway 29 interchange. However, so far, no developers have been willing to commit funding without the presence of infrastructure (sewer, water, and roads).

The idea of a Mennonite furniture store in Thorp, as a way to introduce local handcrafted furniture into the local market was discussed, however, no plans have been confirmed for any of the other types of development mentioned above.

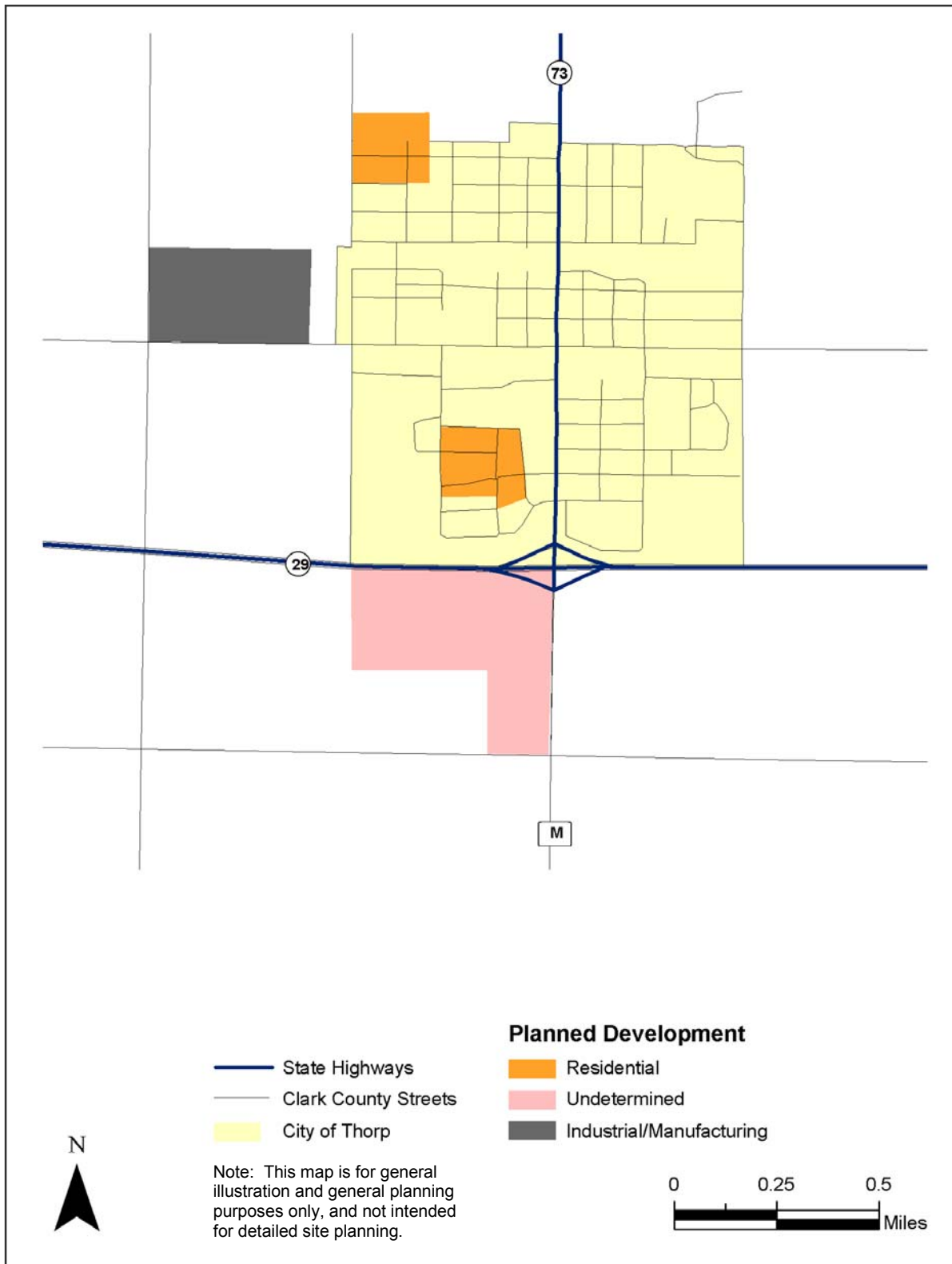
Thorp is continuing concerted efforts to attract businesses to the community. The City also hopes to market itself to tourists as "the halfway stop between Minneapolis and Green Bay". The city's population has decreased between 1990 and 2000, but the township has seen a rise in both population and housing units.

The following map illustrates proposed development in Thorp.



AmericInn Motel is at a prime location, just off the 29/73/CTH M interchange. An adjacent property is for sale; May 2002.

**Figure 55**  
**City of Thorp**  
**Planned Land Use**



Potential industrial development will occur on Thorp's northwest side, along with additional industrial and commercial development southwest of the Highway 29/73 interchange, May 2002.

## Economic Impact of the Highway Improvement

Thorp has been very active in economic development efforts since the construction of Highway 29. A website that describes economic development opportunities in Thorp has been created ([www.Thorp29.com](http://www.Thorp29.com)), receiving 30-40 visits per day.

In conjunction with the website, a five-city partnership was created, in which the communities of Boyd, Owen, Stanley, Thorp, and Withee are working together to jointly address growth and development issues.

Many of the developments in Thorp can be directly attributed to the highway improvements. The proximity of the interchange and four-lane highway were very important to the AmericInn Motel, a hotel chain that exceeded income projections for its Thorp location during its first year of business.



A view of Thorp from the 29/73/M interchange. On the left is a new gas station that includes a Subway sandwich shop, May 2002.

The expanded highway has allowed residents to commute greater distances to jobs offering higher wages and better benefits. Thorp businesses have a lower wage base of \$8-\$10 dollars/hour. With improved highway access, many residents are leaving the city to work at higher paying jobs in other communities along the Highway 29 corridor.

The trend of people shopping in their areas of work resulted in the loss of local retail sales to

other communities. Thorp is therefore relying on people traveling on Highway 29 to stop in for gas, food, and other necessities. The City hopes to attract more long-term visitors by turning into a tourist destination.

## Property Values



Business has been good for this restaurant, located just north of the interchange in Thorp, May 2002.

In anticipation of the new highway, housing prices had initially gone up for the new developments outside the city limits. Since the houses were not being sold at asking prices of \$130,000, they are likely to drop to a more affordable level. At the same time, there has been a demand for construction of multi-family housing in Thorp. This type of housing is more affordable for the people living in the community.

The 100 acres of private land in the southwest quadrant of Highway 29 are anticipated to rise in property. This land was purchased at an estimated price of \$1,200-\$1,500/acre by four local businesspeople. It is expected that the land could be sold for as much as \$130,000/acre for the right type of development. Rural farmland within three miles of Highway 29 has also increased in value and is selling for approximately \$2,000 per acre.

The price of affordable housing in Thorp is considered to be in the range of \$50,000-\$75,000. Recreational land is currently selling for \$650-\$800 an acre.



## **Washington Shawano County**

**Population:** 1,903

**Highway 29 expansion completed:** 1998

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*The Town of Washington is predominately agricultural, with farming as the main industry. Shawano Lake, which is located within the township, is a popular place for recreation, tourism, and retirement home location. Interviewed: Town Chairman.*

### **Community Perception of the Highway Improvement**

Some of the local residents were concerned that the highway expansion would cause people who work in Green Bay to move to the Town of Washington. In addition, in the beginning, some of the people questioned if the highway expansion was really going to happen.



Agriculture is the most prevalent land use in The Town of Washington, June 2003.

### **Current Development**

Six new homes were built due to the highway expansion. Residents of these homes live in the Town of Washington and use Highway 29 to commute elsewhere to work. Existing

businesses are shown in Figure 56 on the following page.

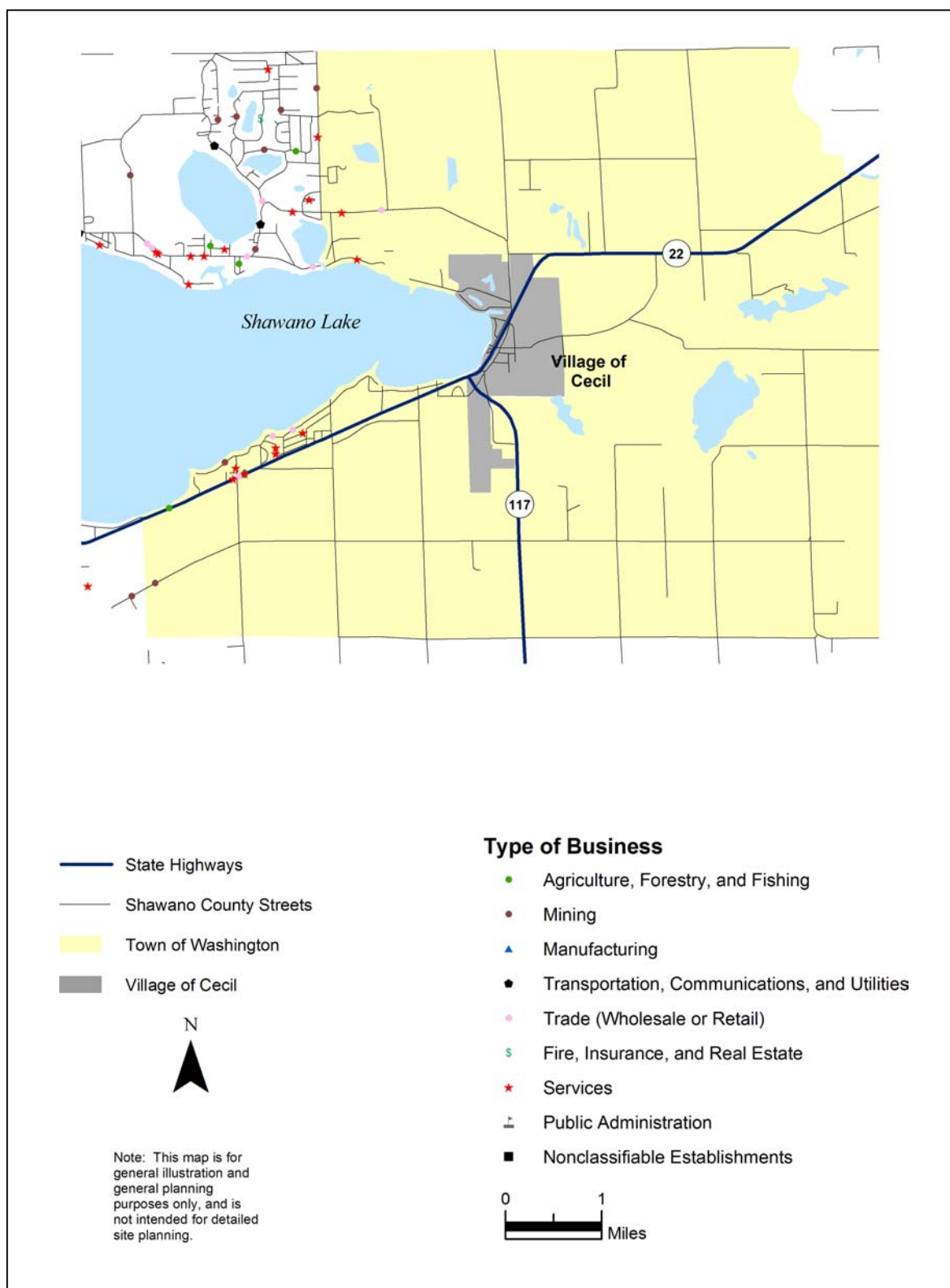
### **Proposed Development**

The Town of Washington's Land Use and Development Plan resulted from the highway improvement. When it was confirmed that Highway 29 will be expanded, the Town of Washington decided to plan ahead, with proactive rather than reactive planning.

A farm was sold on Lakeview Road and is in the process of being developed into 36 residential lots. Homes are being built in the Town of Washington because of its proximity to Shawano Lake. The homes have a view of the lake and generally cost between \$450,000 - \$500,00. Highway 29 has made it easier to access these homes, but people were moving to the area near the lake regardless of the highway development. Eighty-five percent of the Town's tax base comes from the property tax on these high-priced homes.

There has been interest in other areas of development but nothing has transpired from it because the Town of Washington is predominately zoned agricultural for farming purposes. At this time, there are no plans for commercial or industrial development.

**Figure 56**  
**Town of Washington Businesses**



Most of the Town of Washington's 50 businesses are located on Lake Shawano's southeast side and on the northwest edge of town, June 2003.



### **Additional Comments**

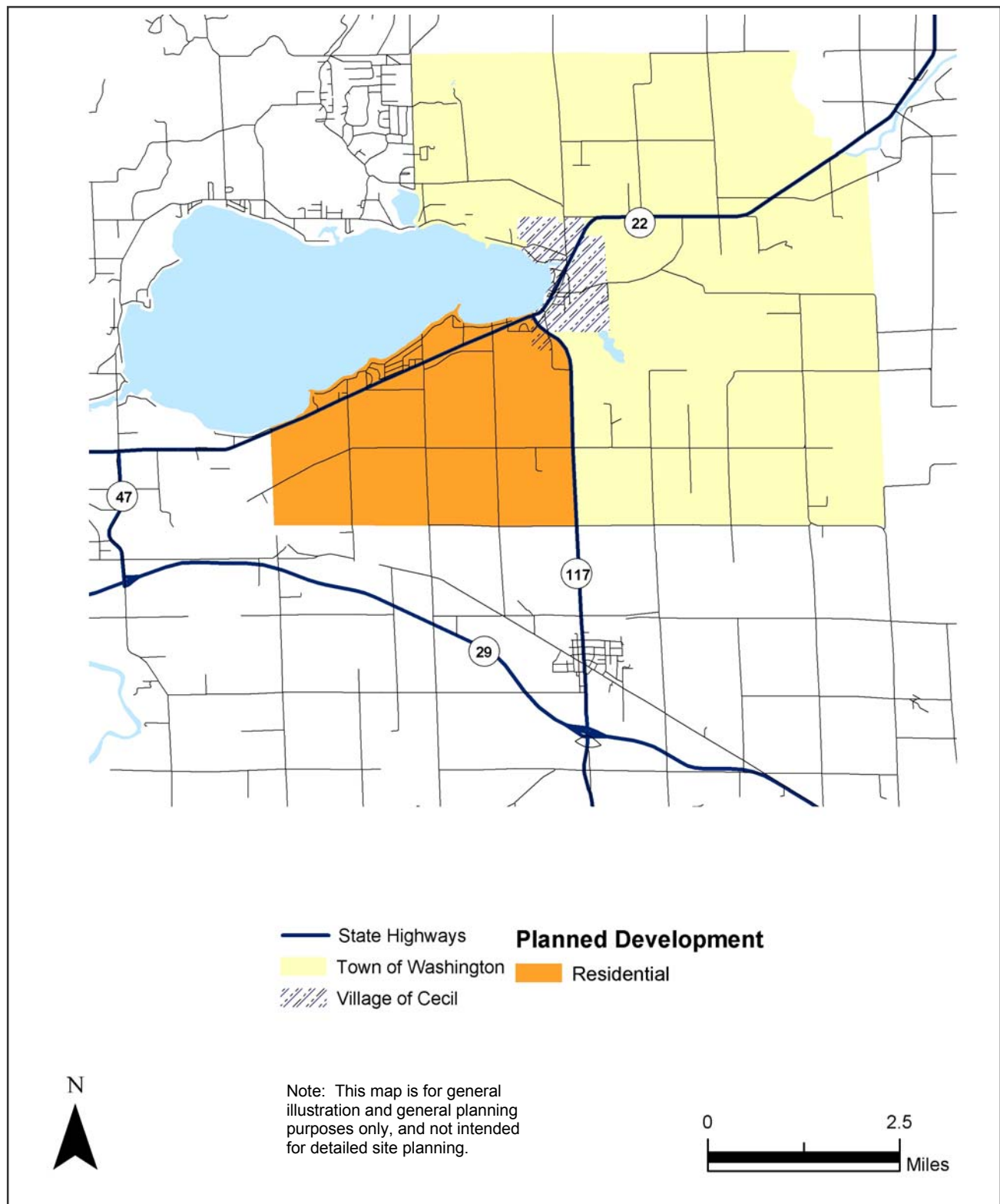
An asphalt plant that was once located in an adjoining township is now located within the borders of the Town of Washington. It is a large operation, including 40-foot-high walls and occasional malodorous smells caused by the petroleum-based asphalt production. The business does not harm the residents nearby, but is not considered a visually desirable location.



The STH 29 expansion has increased the flow of tourists into Washington. Shawano Lake, shown here, is one of the area's popular attractions, June 2003.

Planned land use in the Town of Washington is illustrated in Figure 57.

**Figure 57**  
**Town of Washington**  
**Planned Land Use**



Residential development is planned in the southwest corner of the STH 22/117 intersection in the Town of Washington, June 2003.



## **Wausau**

### **Marathon County**

**Population:** 38,426

**Highway 29 expansion completed:** Completed in segments, between 1967 and 1991

*In Wausau, you will experience that special hometown feeling when you visit the historical downtown and shop at one of the specialty stores on the Third Street pedestrian mall, listen to music in the summer or ice skate in the winter on the downtown public square, walk through the Marathon County Historical Museum, tour the Warren Historic District, shop at the Wausau Center Mall, attend a theater or music event at the Grand Theater, or visit the Leigh Yawkey Woodson Art Museum. There is always something going on no matter what the season is. You will also enjoy the area's natural features and many city parks that provide beauty and recreation throughout the four seasons.<sup>20</sup> Interviewed: City Planner, City Assessor, and City Business Development Director.*

### **Community Perception of the Highway Improvement**

Highway 29 was initially not within the city limits. The city expanded over time, to include both the current Highway 29 and the Old Highway 29 (Stewart Ave.). The new Highway 29 was initially planned to bypass the city in the long run, but that plan was scrapped recently, and the expanded four-lane Highway 29 now runs parallel to Stewart Avenue.

The city's 1963 comprehensive plan included the planned expansion of Highway 29 together with planned residential, commercial, and industrial development.



Green Bay Packaging Inc., one of the first major employers to locate in Wausau West Business and Industrial Park. The firm located here partly due to the freeway access from a nearby interchange, March 2003.

The City subsequently purchased land from the County to create the Industrial Park. Later, additional land was purchased to expand the industrial park and three TIF districts, comprising 250 acres, were created to pay for public infrastructure costs.

### **Current Development**

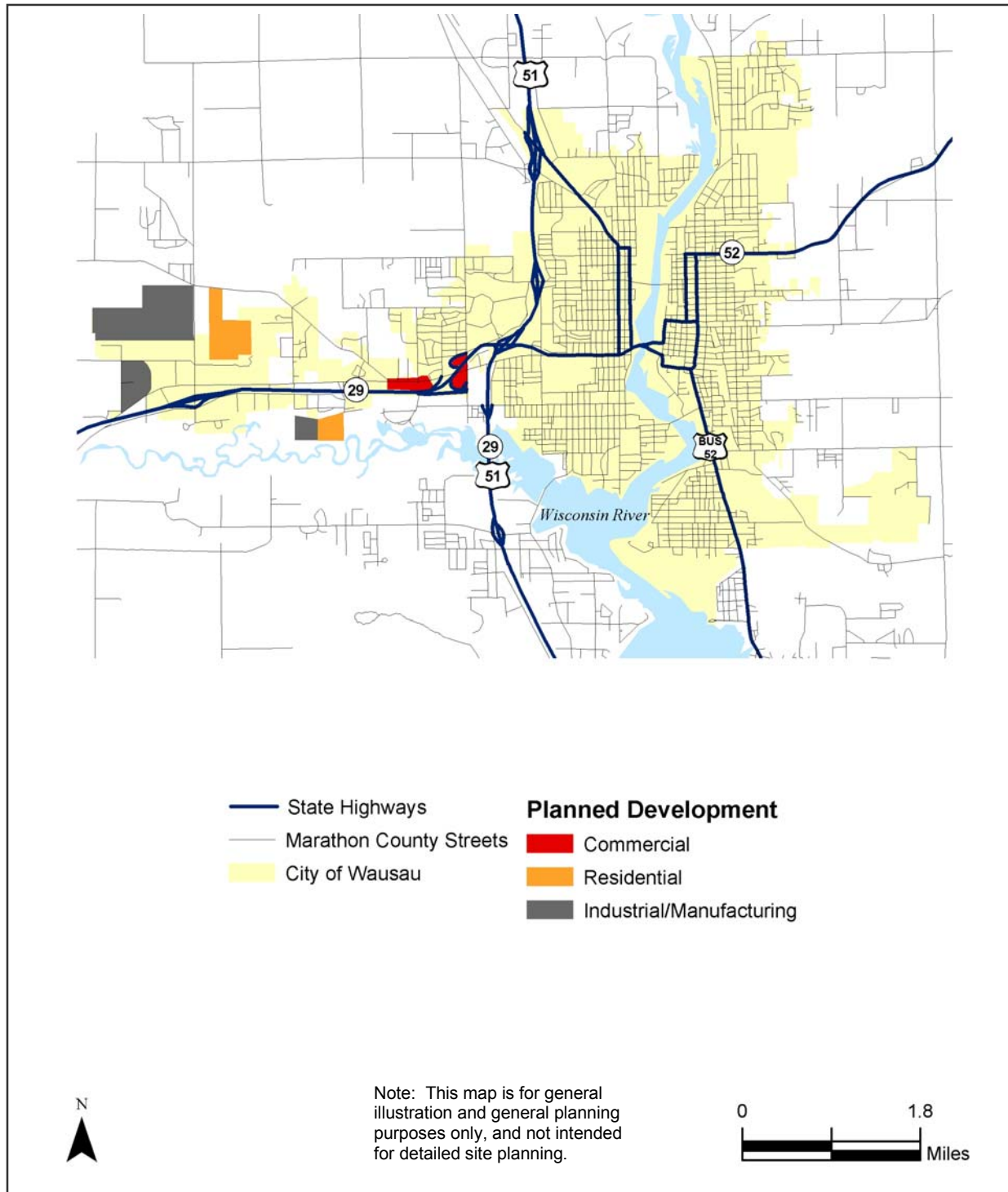
The highway expansion has probably increased developers' interest in Wausau. Menards, Wausau Insurance, Wausau Hospital, and other commercial and residential development located on Wausau's west side, probably as a result of the expanded highway.

Wausau West Industrial Park, containing both industrial and commercial businesses, was also developed during and after the construction of the highway. Since over 3,000 businesses have been identified in Wausau, a map of business types and locations was not included in this city's community profile.

Figure 58 on the following page illustrates planned land use in the City of Wausau.



**Figure 58**  
**City of Wausau**  
**Planned Land Use**



This map illustrates planned development near STH 29 in Wausau, March 2003.

## **Economic Impact of the Highway Improvement**

The expanded highway improved access to the Wausau West Industrial Park in the west and to banks, offices, and restaurants in the east.

The industrial park, which contains both industrial and commercial businesses, would probably not exist today without the expanded highway. It allowed highest and best use development for the area.

There have not been negative effects from the highway improvement to Wausau's downtown.



E.O. Johnson established this office and service center, adjacent to STH 29, to take advantage of the highway access and visibility of the area, March 2003.



Menards Inc. established this retail-shopping complex at the interchange of STH 29 and USH 51 to take advantage of the access and visibility of the area, March 2003.

## **Additional Comments**

The Wausau Hospital, has, over the years, undergone several expansions before locating centrally on 28<sup>th</sup> Ave. It was established on the northeast side of the city, then moved to the south side, and finally located on 28<sup>th</sup> Avenue in 1976. Around the hospital are other medical facilities that are continuing to grow today.

## **Property Values**

The highway expansion provided easier access and led to construction along Stewart Avenue. There was an increase in commercial property construction and property values rose, adding to the city's tax base.



## **Weston**

### **Marathon County**

**Population:** 12,079

**Highway 29 expansion completed:** 1990

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*With a progressive business environment and a trade area that encompasses nearly 100,000 residents, Weston is able to maintain a tightly knit social fabric through its local specialty shops, coffee houses, active churches, and village aquatic center. At the same time, the Village offers the art and recreational opportunities of a larger community. Interviewed: Village Administrator, President.*

#### **Community Perception of the Highway Improvement**

The right-of-way for Highway 29 was purchased in 1958. In the late 1980s, when the highway's construction time was approaching, residents did not want a highway routed through their residential area. Businesses were looking forward to the expanded highway.

#### **Current Development**

There was commercial and medical development at the intersection of Highway 29 and Camp Phillips Road, and industrial development at the intersection of Highway 29 and County Road J. Figure 59 illustrates existing Village of Weston businesses.

#### **Proposed Development**

The Village is currently in the process of updating its 1990 plan. The Village's first plan was adopted in 1966 and was later updated in 1990. A map of Weston's planned land use is shown in Figure 60.

Development interests have been around since the 1960s, because of the village's prime soil conditions, easily accessible water, and easy waste disposal. The highway expansion in

Weston took place over 10 years ago. At that time, there was rapid development.

In 1998, a Tax Incremental Financing (TIF) district was adopted. The district runs parallel to Highway 29, bordered by Business 29 and Weston Avenue to the north and south, respectively, and by County Road J and Camp Phillips Road to the east and west, respectively.

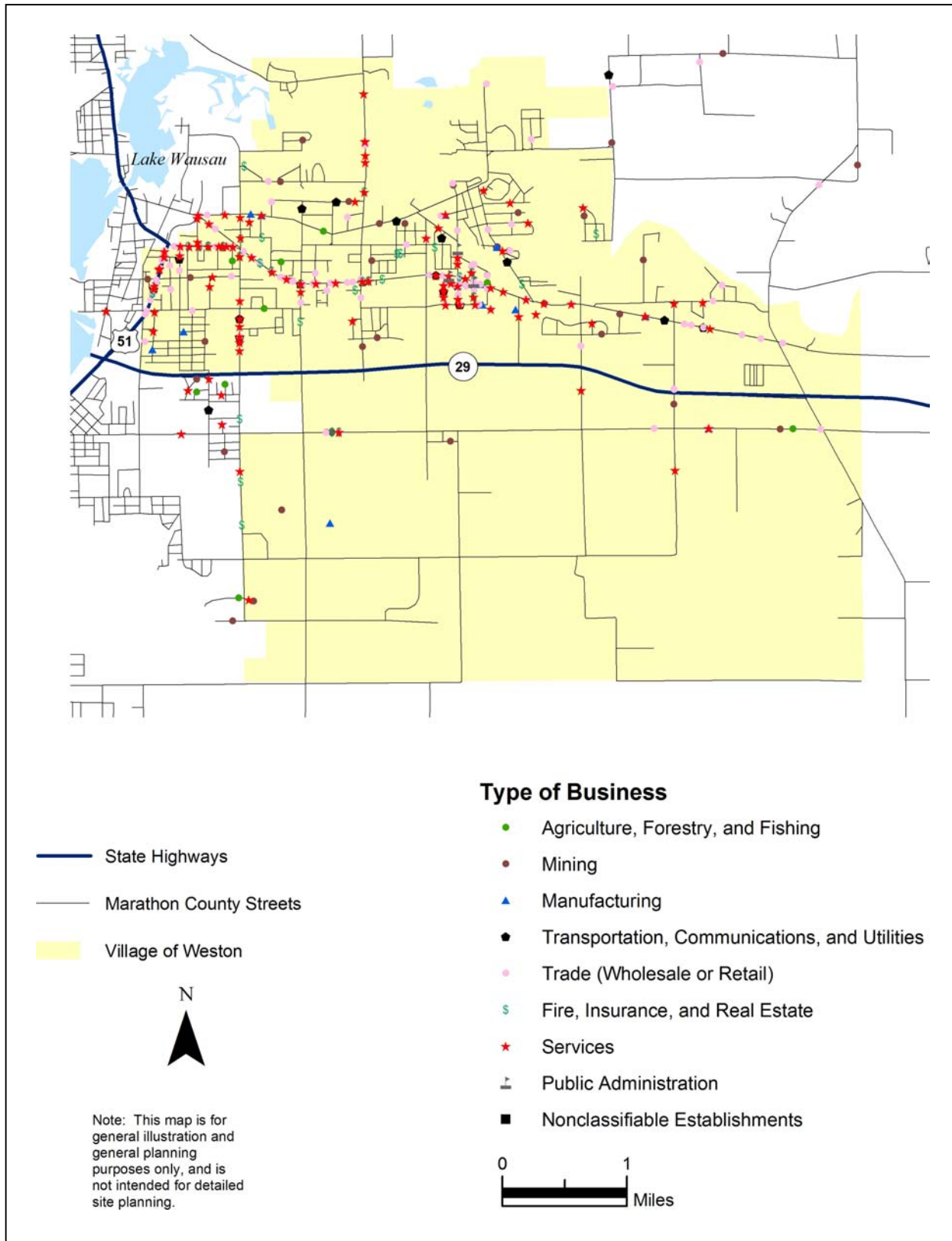
Note: The Village of Weston, previously a town, has been incorporated since 1996.

#### **Additional Comments**

From 1990 to date, the village experienced \$40 million in growth due to the highway. Through 2015, a \$273 economic impact is expected. As far as negative impacts of the highway expansion, a gas station and a restaurant have experienced a minor drop in business levels.

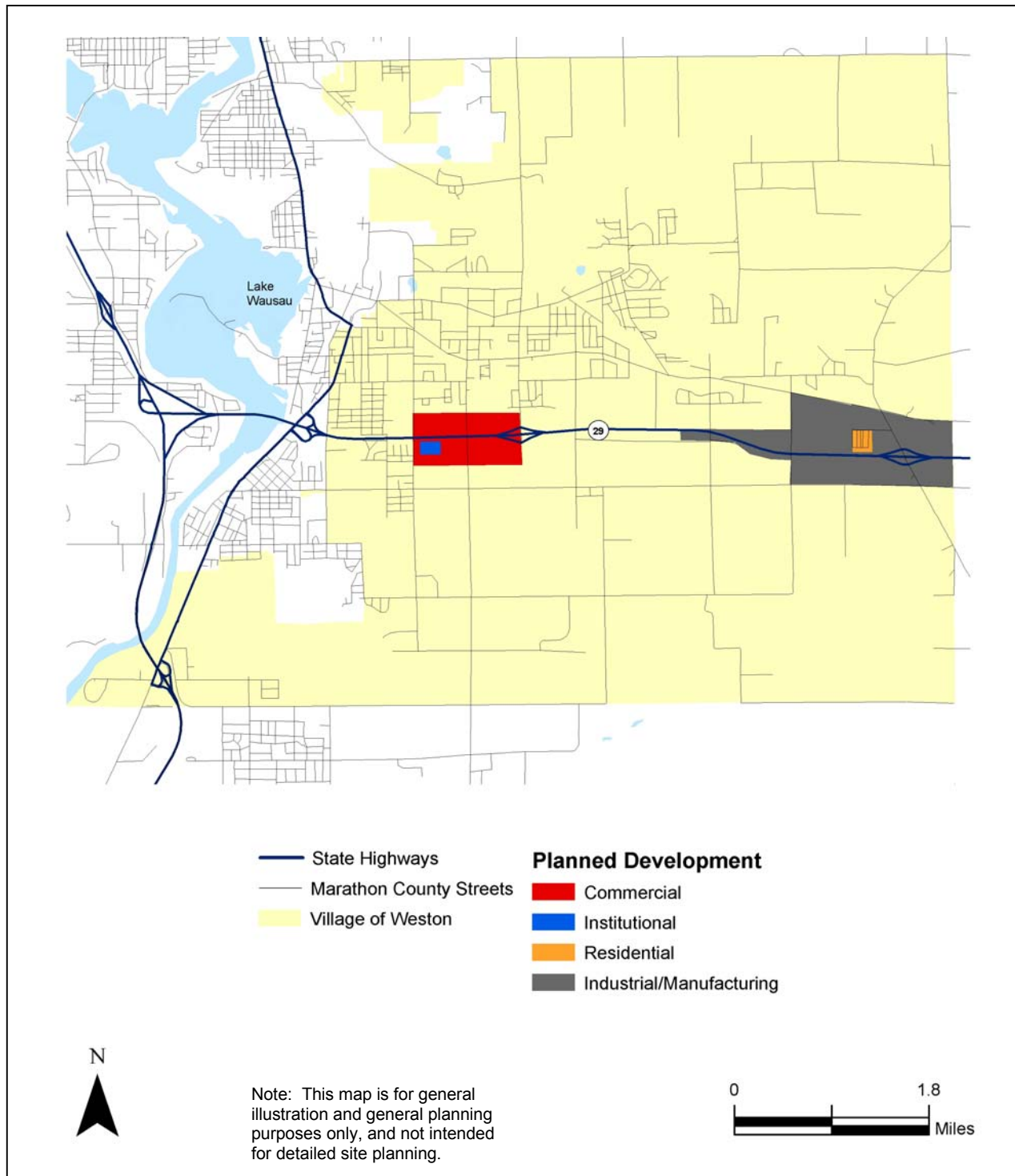
In most cases, the expanded Highway 29 has not generated economic growth in the village, but rather accelerated it. A giant leap in economic growth is expected after the completion of the new hospital's construction.

**Figure 59**  
**Village of Weston Businesses**



A map of Weston's businesses, most of which are located north of STH 29, April 2003.

**Figure 60**  
**Village of Weston**  
**Planned Land Use**



Weston's commercial, institutional, residential, and industrial plans for development are all along STH 29, April 2003.



## Property Values

Property values have quadrupled in some cases, due to favorable development conditions and available housing and commercial development in the TIF. It is impossible to say whether the rise in property values could be attributed to the expanded highway. The TIF is expected to raise commercial property values in the future. Since the construction of St. Claire's Hospital was announced, property values in the hospital area have doubled.



A drawing of Weston's future St. Clare's Hospital. Since its construction was announced, area property values have doubled. Drawing courtesy of Ministry Health Care, Spring 2004.



## **Withee**

### **Clark County**

**Population: 506**

**Highway 29 expansion completed: 1996**

*Located off Highway 29 just west of Owen, the Village of Withee provides a variety of unique opportunities with a small-town feel. Withee's Sportsman Club offers trap shooting and bow and arrow targets while local Mennonite stores provide a taste of country life. Withee and Owen cooperatively share their many outdoor facilities. Interviewed: Village President, Clerk-Treasurer.*

### **Community Perception of the Highway Improvement**

The Village of Withee had high expectations for the expansion of Highway 29. An interchange with good access to the highway was very important to the community. Withee appreciates the design of the interchange and feels that the four-lane highway is significantly safer and moves vehicles faster than the former two-lane highway.

### **Current Development**

Withee has one Tax Incremental Financing (TIF) district. Prospect Street, funded through the TIF district, was an additional road added to the industrial park in anticipation of the Highway 29 expansion. At the time of the interview, the industrial park was filled close to capacity.

A Mobil Mart gas station, a car wash, and a bank are the most recent developments in the community. The Mobil Mart recently located on the vacant lot of a business that was destroyed by a fire. This location was ideal since it is close to the highway improvement. The development serves both highway travelers and local customers.

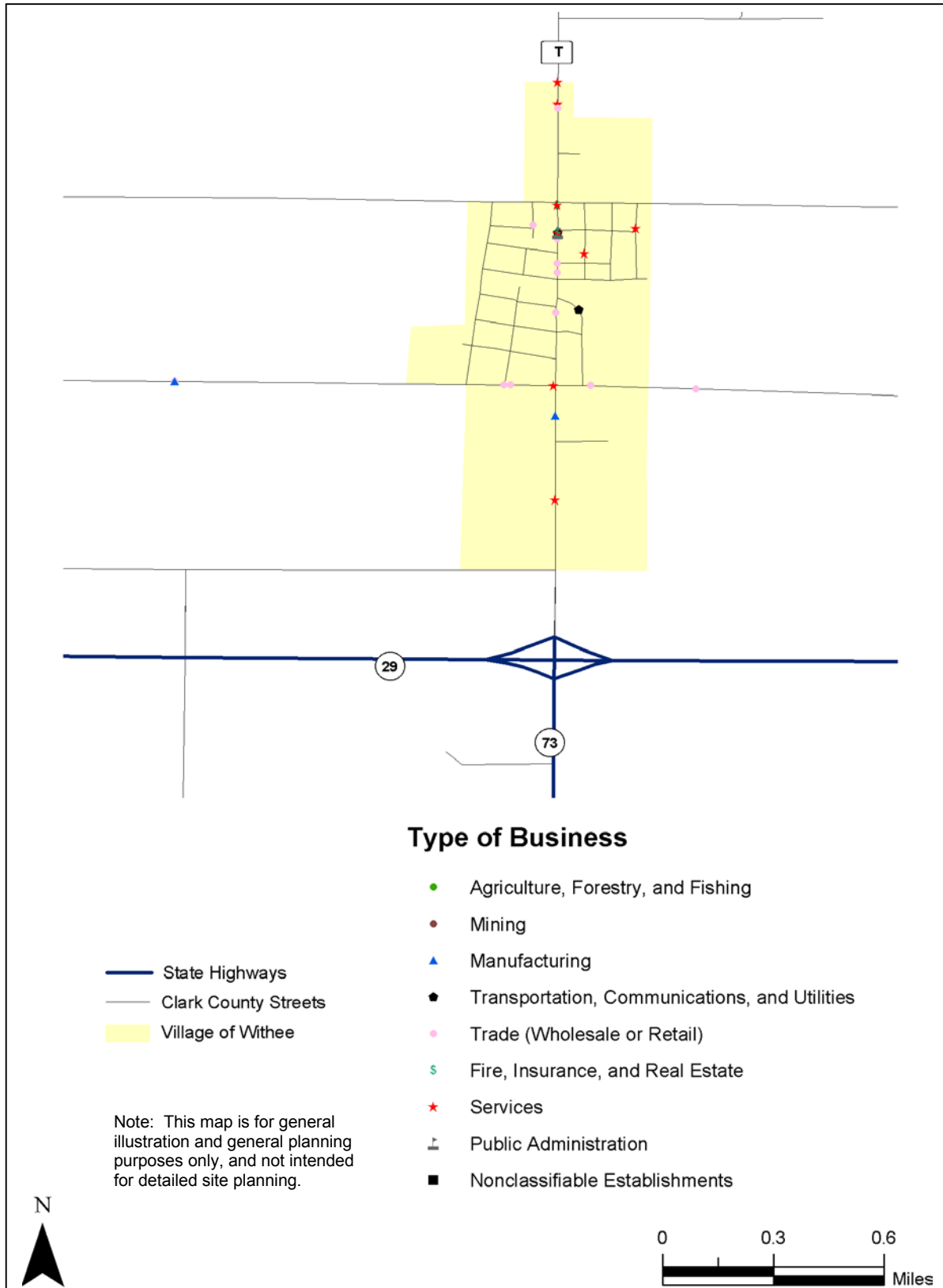
Housing has continued to grow at a constant rate. There have been some new housing starts, mainly vacant lots within a designated residential development.



A new bank (on the right) and an old brick schoolhouse (located behind it and to the left), May 2002.

The following map illustrates the locations and types of businesses in Withee.

**Figure 61**  
**Village of Withee Businesses**



Over 20 businesses, mainly manufacturers and service establishments, are located in Withee, May 2002.



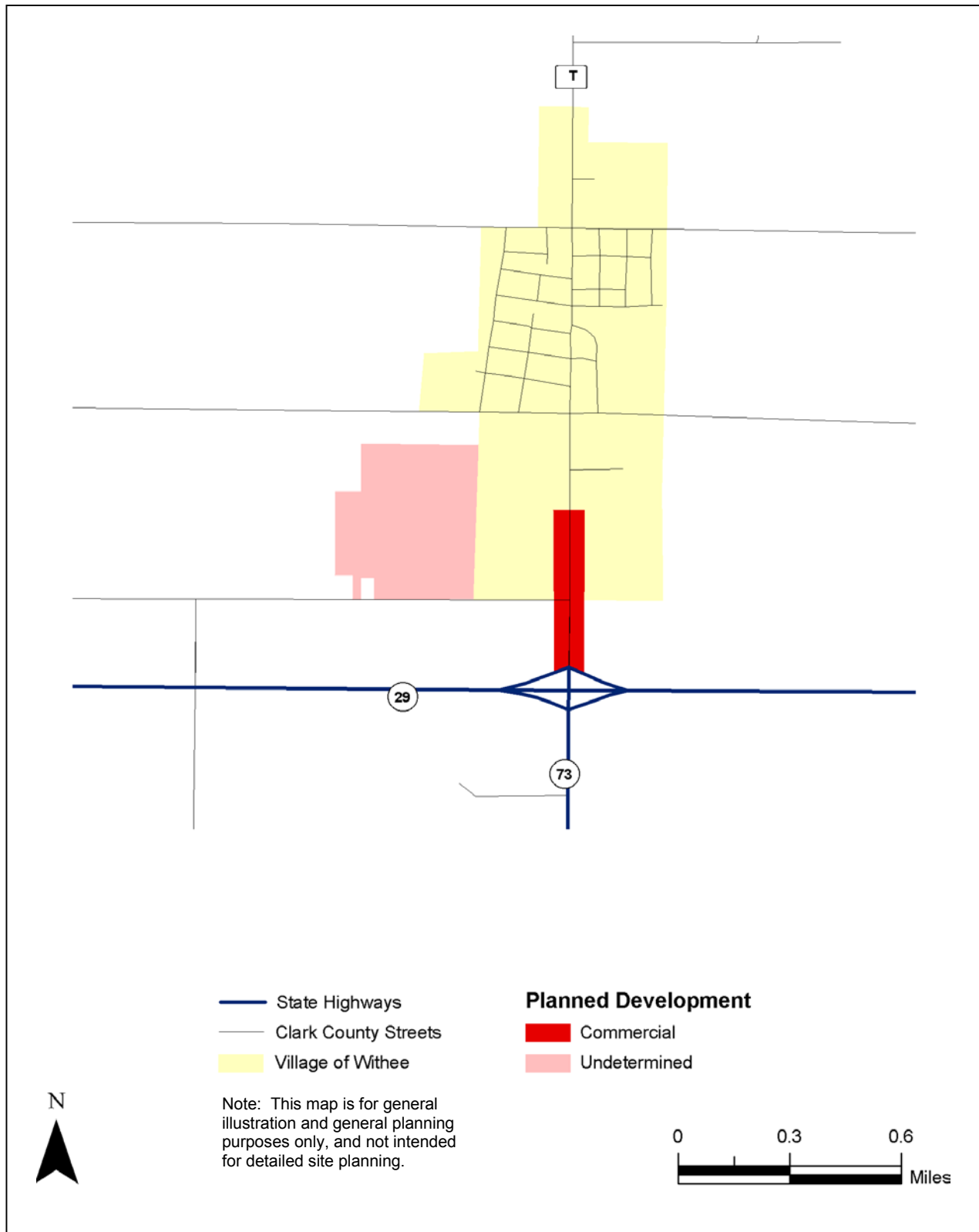
## **Proposed Development**

Withee is in the beginning stages of community and economic development. Two new commercial developments (a pizza business and a café) are in the process of locating adjacent to the east edge of the industrial park. In conjunction to these developments, commercial development is anticipated to continue along both sides of County Road T near the interchange.

West of the industrial park is an area of farmland that has been purchased in anticipation of development. Its anticipated land use is currently undecided.

The following map illustrates planned development in Withee.

**Figure 62**  
**Village of Withee**  
**Planned Land Use**



Some commercial development in Withee is planned north of Highway 29, along Division Street, May 2002.

## **Economic Impact of the Highway Improvement**

With the increased speed limit on Highway 29 and the new location of the prison in Stanley, there has been increased interest in residential development in Withee. It is anticipated that prison workers will want to live in Withee and surrounding communities. However, development is not likely to occur until the prison is open and the demand for housing by the Stanley prison employees is known.

Due to recent business closures, two large, (12,000 square foot and 22,000 square foot) buildings have recently become available for redevelopment from the local bank. The improved Highway 29 has made it easier to market these buildings.

## **Property Values**

There has been a 50-80% increase in property values near the interchange. The 20-acre farm, on which the pizza shop and café are now located, was purchased for \$48,000. In May 2002, the same property was valued at \$75,000. The parcel of farmland purchased for future development (west of the industrial park) was valued at \$300 per acre and recently sold for \$900 acre.



## **Wittenberg**

### **Clark & Marathon Counties**

**Population:** 1,177

**Highway 29 expansion completed:** August 1999

*The Village of Wittenberg is located 28 miles west of Wausau, at the intersection of Highways 29 and 45. Wittenberg has active local service organizations, a tightly knit community, and strongly supported high school sports teams. Interviewed: Village President, Town of Wittenberg Treasurer.*

### **Community Perception of the Highway Improvement**

The public very much accepted the proposed highway's design. Regarding safety issues, the intersections of the Old Highway 29 and County Road Q (on the village's west side) and the intersection of Old Highway 29 and U.S. Highway 45 were dangerous. On USH 45, traffic would back up sometimes over three miles north. The highway expansion has improved safety.

### **Current Development**

Wittenberg Business Park 2 was developed as a direct result of the new highway. Witt Industries, an electronic components manufacturer, is planning to locate in the park. A new Shell station and a McDonald's also located at the intersection of North U.S. Highway 45 and Highway 29/45.

In the Town of Wittenberg, less than 2 miles east of the village limits, a gas station/restaurant complex has been built and a Comfort Inn located next door. Another service-type establishment is planned for this location as well.

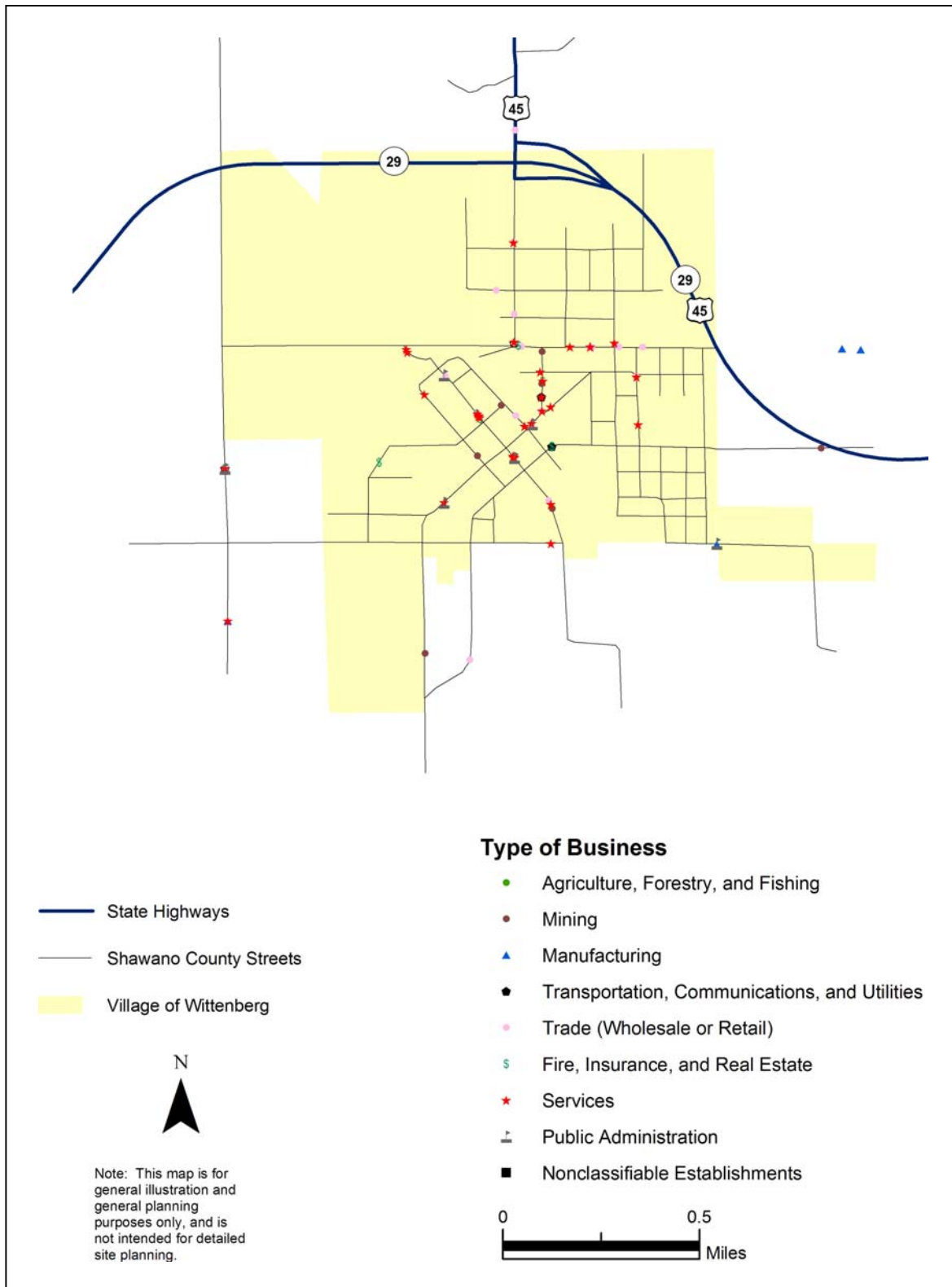
Also significant to the community but unrelated to the highway's expansion is the 2002 expansion of Glover Manufacturing, a manufacturer of parts for the transportation industry. Eight employees were added as a result of this expansion.

With the exception of Glover Manufacturing, all of the developments listed above are related to the new highway's easier access, made possible by the diamond interchange. The map in Figure 63 illustrates Wittenberg's businesses by type and location.



This A&W Restaurant, located on old Highway 29, was negatively impacted by the new Highway 29 bypass of the village, April 2003.

**Figure 63**  
**Village of Wittenberg Businesses**



A map of Wittenberg's approximately 170 businesses, shown by industry and geographic location, April 2003.

## **Proposed Development**

For the past several years, the Town of Wittenberg has been working cooperatively with the Village. The fire and ambulance services are shared, for example. The Town and Village are starting to jointly work on a comprehensive Smart Growth plan. There is no specific proposed development at this time; however, the highway improvement has increased interest among developers, especially those from the Green Bay area.

Figure 64 on the following page illustrates future planned land use in the Village of Wittenberg. The Village is a high-services community, and non-residential development is most likely to take place on its east side, because the west side is dominated by wetlands. The Lutheran Social Services organization owns the north side and operates an institution for troubled youth there. This organization is

unlikely to develop the land for any other purposes than its own.

## **Property Values**

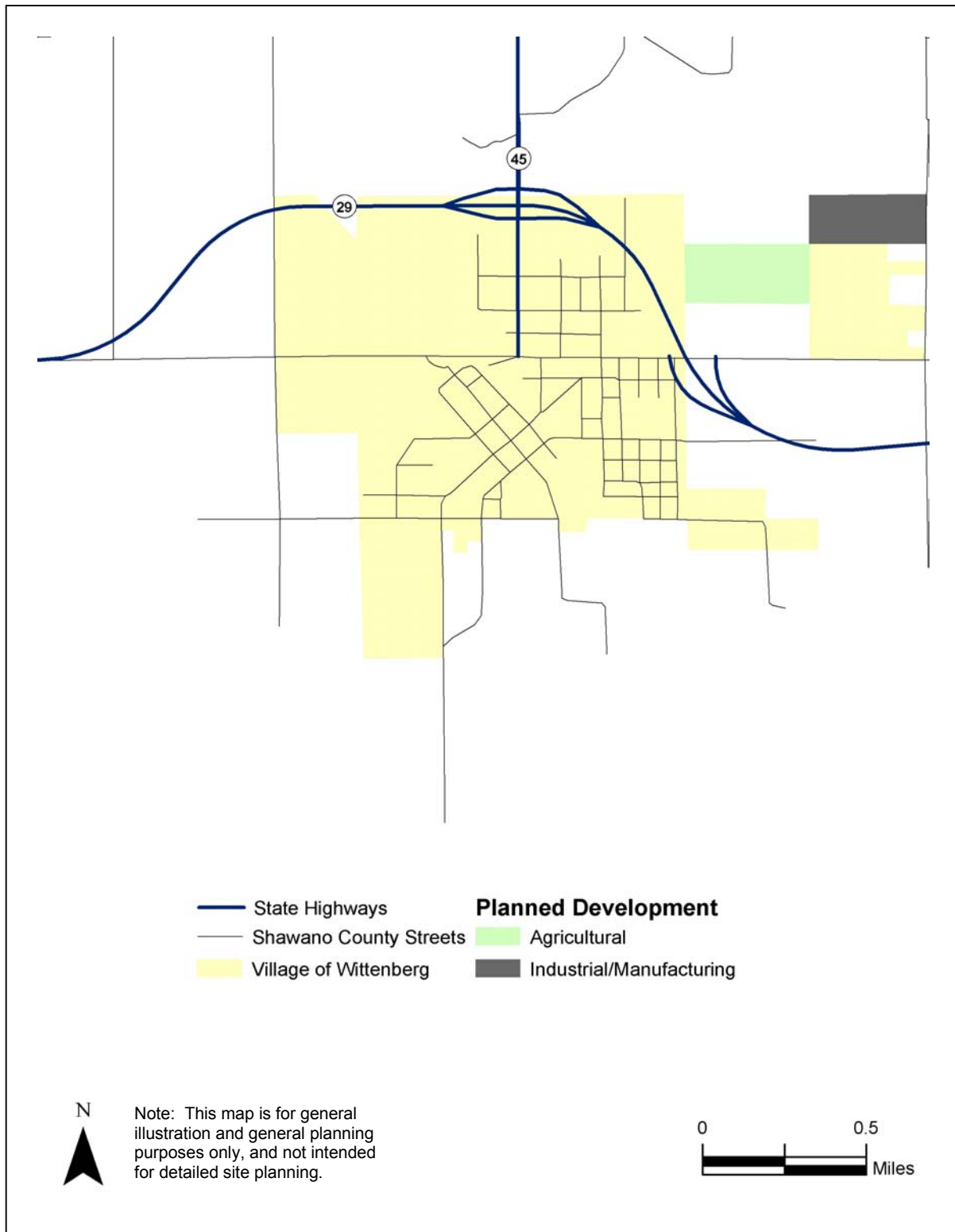
Properties have been coming for sale on the village's east side. Prices have been rising, probably due to the new highway.

## **Additional Comments**

A&W Restaurant and Nueske Meats on Old Highway 29 were negatively impacted due to impaired access and visibility. Nueske Meats subsequently had to spend more on advertising to offset this impact.

Two car dealerships and a Mobil Station were also negatively affected. A motel located on Genesee St., on the north side of the village lost about 20% of its business due to the highway.

**Figure 64**  
**Village of Wittenberg**  
**Planned Land Use**



A map of Wittenberg's future agricultural and industrial land use, on the village's northeast side, April 2003.

# Appendices

## Appendix 1

### Sources of Community Profiles Information

Bill Beil, Abbotsford Director of Public Works  
Clifford Powers, Town of Angelica Supervisor  
Dick Smith, Town of Angelica Planning Committee Chairman  
Janet Powers, Clerk, Town of Angelica  
Barb Wickman, Clerk-Treasurer, Village of Bonduel  
Steve Berndt, Village of Bonduel, Director of Municipal Operations  
Richard Schoch, Village President, Village of Boyd  
Sandi Isaacs, Village Clerk, Village of Boyd  
Sandy Buetow, Village Clerk, Village of Cadott  
Ray Weiland, Director of Public Works, Village of Cadott  
John Regetz, Executive Director, Chippewa County Economic Development Corporation  
Jayson Smith, City Planner, Chippewa Falls  
Connie Gurtner, City of Colby Clerk-Treasurer  
Jim Schmidt, Mayor, City of Colby  
Arlan Hamm, President, Village of Curtiss  
Lila Meske, Trustee, Village of Curtiss  
Sue Willhite, Deputy Clerk-Treasurer, Village of Edgar  
Dennis Weix, Village of Edgar Administrator  
Chuck Lamine, Brown County Planning Director (Green Bay interview)  
Cole Runge, Brown County Principal Planner (Green Bay interview)  
Paul Ehrfurth, Vice President of Economic Development, Green Bay Area Chamber of Commerce  
David Narloch, President, Village of Hatley  
Joe Helfenberger, Administrator, Village of Hatley  
Dave Wiese, Planner, Village of Howard  
Kathy Luebke, Shawano County Board of Supervisors, District 13 (Board of Health, Solid Waste Board)  
Inge Van Kampen, Village Administrator, Village of Marathon City  
Mary Olson, Clerk-Treasurer, Town of Oneida  
Joel Kahl, Clerk-Treasurer, City of Owen  
Tim Swiggum, Mayor, City of Owen  
Ray W. Heiser, Town Chairman, Town of Rib Mountain  
Wallace Brzezinski, Chairman, Town of Ringle Planning Commission  
George O. Peterson, P.E., Administrator of Public Works, Village of Rothschild  
Roger Luce, Executive Director, Marathon County Chamber of Commerce (Schofield interview)  
Jaems Krause, Schofield Mayor  
James W. Stadler, Administrator, City of Shawano  
William Guelzow, Shawano Assessor & Zoning Administrator  
David Jankoski, City of Stanley Mayor  
Jim Pfalzgraf, President, Thorp Area Development Corporation  
Chad L. Pawlak, Owner/Broker, Thorp Sales, LLC  
Jim Schneider, Chairman, Town of Washington



**Appendix 1 - Continued**  
**Sources of Community Profiles Information**

Nanette S. Giese, City Assessor, City of Wausau  
Joseph M. Pribanich, City Planner, City of Wausau  
Kristen Fish, Business Development Director, City of Wausau  
Dean A. Zuleger, Village Administrator, Village of Weston  
Vilas Machmueller, President, Village of Weston  
Jan Miller, Clerk-Treasurer, Village of Withee  
Kay Miller, Village President, Village of Withee  
Raymond Hartleben, President, Village of Wittenberg  
Allen Kohn, Treasurer, Village of Wittenberg

## **Appendix 2**

### **Assessors**

Mike Denor  
Nanette S. Giese  
William Guelzow  
Kenneth Hoffman  
Jon Holton, Associated Appraisals  
Roger Koski, Bowmar Appraisals  
Patty Schimmel  
Nancy Moneau  
Al Balsinger  
Sherry Konan  
Kenneth Krouse  
James L. Kurtzweil  
Jerome Prochnow  
Melvin Raatz, R & R Assessing Services  
Gregory Schmidt

**Appendix 3  
Community Questionnaire**

**Wisconsin State Highway 29  
Chippewa Falls to Green Bay  
Economic Development & Land-Use Study**

**Query Form for Planners, Economic Development Representatives, and Assessors**

**Date:**

**Community:**

**Population:**

**Interviewer:**

**Contacts:**

**Assessors** (see separate list)

- 1. When was Highway 29 completed in your community?**
  
  
  
  
  
  
  
  
  
  
- 2. What were some of the concerns or issues of the public regarding the highway expansion project?**
  
  
  
  
  
  
  
  
  
  
- 3. What types of development have occurred in the community during and after the construction of the highway? (e.g. housing starts, new or relocated manufacturing facilities, retail, service types of businesses)**
  
  
  
  
  
  
  
  
  
  
- 4. Do you believe any of these developments were related to the highway improvement? If so, how were they related? (i.e., businesses locating near the interchange, businesses expanded along or near the highway, etc.) Please provide the names of these businesses.**

**Appendix 3 - Continued  
Community Questionnaire**

- 5. Describe the types of community planning and/or economic development efforts that have taken place before and after the construction of the highway improvement.**
- 6. Has the highway improvement increased developers' interest in your community? If so, what were the proposed developments?**
- 7. Were there any negative economic impacts of the highway improvement, particularly on businesses in the communities? If so, describe these impacts.**
- 8. Has property along the improved highway corridor changed in value before, during, or after the construction of the highway? If so, how much did the property increase or decrease in value?**
- 9. Assessor's comments:**
- 10. Additional comments:**

#### **Appendix 4**

##### **Interviewed Companies**

Abbyland Foods, Abbotsford  
Abbyland Trucking, Abbotsford  
All Metal Stamping, Inc., Abbotsford  
August Lotz Co., Boyd  
Borregaard Lignotech USA, Rothschild  
Boyd Feed & Supply, Boyd  
Carver Boat Corporation, Pulaski  
Chippewa Falls Main Street Program, Chippewa Falls  
CloverLeaf Dairy, Stanley  
Decorator Industries, Abbotsford  
Farmers Plaza, Abbotsford  
Freddy's Mexican and More, Hatley  
Golden Sands Golf Community, Howard  
Granite Peak Ski Area, Rib Mountain  
H & E Porter Paints Decorating, Thorp  
Haas Transport, Inc. Thorp  
Highview Custom Fabrication, Hobart  
IKE International, Stanley  
Industrial Engraving, Pittsfield  
Joe's Refrigeration, Withee  
Kerry Ingredients, Owen  
Laney Cheese- Stiede 1, Maple Grove  
Legends Restaurant, Howard  
Liberty Packing Inc., Wittenberg

Mapleton Wood Products, Thorp  
Marathon Cheese Corp., Marathon City  
Marshfield Clinic, Chippewa Falls  
Marth Wood Shaving Supply Inc., Marathon  
Marth Manufacturing, Marathon  
Marth Transportation Inc., Marathon  
Mega Pick and Save, Weston  
Midway Steel, Withee  
Mr. D's Establishment, Edgar  
Nite Inn, Schofield  
Nueske Hillcrest Farm Meats, Wittenberg  
Omnova Solutions, Howard  
Owen Manufacturing, Owen  
Packaging Corporation of America, Colby  
Pamida, Abbotsford  
Performance Pallet Corporation, Oneida  
Riesterer and Schnell Inc., Angelica  
River Valley Express, Ringle  
SAS Technologies, Chippewa Falls  
Shawano Medical Center, Shawano  
Silent Thunder Transport, Chippewa Falls  
Target, Weston  
Thorp IGA Foodliner, Thorp  
Wal-Mart, Shawano  
Welcome Dairy, Colby

**Appendix 5****1990 and 2000 Population in Communities within 5 miles of State Highway 29**

Name	Type	2000 population	1990 population	Percent change	Absolute change
ABBOTSFORD	C	1,956	1,916	2%	40
ALLOUEZ	V	15,443	14,431	0	1,012
ALMON	T	591	557	6%	34
ANGELICA	T	1,635	1,417	15%	218
ANSON	T	1,881	1,634	15%	247
ARTHUR	T	710	756	-6%	-46
ASHWAUBENON	V	17,634	16,376	8%	1,258
ATHENS	V	1,095	951	15%	144
BARTELME	T	700	618	13%	82
BELLE PLAINE	T	1,867	1,792	4%	75
BELLEVUE	T	11,828	7,541	57%	4,287
BIRNAMWOOD	V	795	693	15%	102
BIRNAMWOOD	T	711	632	13%	79
BONDUEL	V	1,416	1,210	17%	206
BOWLER	V	343	279	23%	64
BOYD	V	680	683	0%	-3
BROKAW	V	107	224	-52%	-117
CADOTT	V	1,345	1,328	1%	17
CASSEL	T	847	816	4%	31
CECIL	V	466	373	25%	93
CHASE	T	2,082	1,375	51%	707
CHIPPEWA FALLS	C	12,925	12,727	2%	198
COLBY	C	1,616	1,532	5%	84
COLBY	T	908	846	7%	62
CURTISS	V	198	173	14%	25
DE PERE	C	20,559	16,594	24%	3,965
DELMAR	T	941	994	-5%	-53
DORCHESTER	V	823	697	18%	126
EAGLE POINT	T	3,049	2,542	20%	507
EASTON	T	1,062	1,039	2%	23
EAU CLAIRE	C	61,704	56,856	9%	4,848
EDGAR	V	1,386	1,318	5%	68
EDSON	T	966	913	6%	53
ELAND	V	251	247	2%	4
ELDERON	T	567	605	-6%	-38
ELDERON	V	189	175	8%	14
FAIRBANKS	T	687	600	15%	87
FENWOOD	V	174	214	-19%	-40
FRANKFORT	T	651	606	7%	45
FRANZEN	T	505	532	-5%	-27
GERMANIA	T	339	410	-17%	-71
GOETZ	T	695	640	9%	55
GRANT	T	974	946	3%	28

Source: U.S. Census Bureau, August 2002.

**Appendix 5 - Continued**
**1990 and 2000 Population in Communities within 5 miles of State Highway 29**

Name	Type	2000 population	1990 population	Percent change	Absolute change
GRANT	T	974	946	3%	28
GREEN BAY	C	102,313	96,466	6%	5,847
GREEN GROVE	T	902	628	44%	274
GREEN VALLEY	T	1,024	984	4%	40
GRESHAM	V	575	515	12%	60
HALLIE	T	4,703	4,531	4%	172
HARTLAND	T	825	764	8%	61
HATLEY	V	476	295	61%	181
HERMAN	T	741	739	0%	2
HIXON	T	740	673	10%	67
HOARD	T	594	805	-26%	-211
HOBART	V	5,090	4,284	19%	806
HOLTON	T	907	971	-7%	-64
HOWARD	T	648	625	4%	23
HOWARD	V	13,546	9,874	37%	3,672
HULL	T	773	836	-8%	-63
JOHNSON	T	993	923	8%	70
KRONENWETTER	T	5,369	4,850	11%	519
LAFAYETTE	T	5,199	4,448	17%	751
LEDGEVIEW (T-DE PERE)	T	3,363	1,568	114%	1,795
LESSOR	T	1,112	892	25%	220
LONGWOOD	T	698	661	6%	37
LUDINGTON	T	998	906	10%	92
MAINE	T	2,407	2,206	9%	201
MAPLE GROVE	T	1,045	1,159	-10%	-114
MARATHON	T	1,085	978	11%	107
MARATHON CITY	V	1,640	1,606	2%	34
MAYVILLE	T	919	932	-1%	-13
MENOMINEE	T	4,562	3,890	17%	672
MORRIS	T	485	453	7%	32
MOSINEE	T	2,146	1,638	31%	508
NAVARINO	T	422	439	-4%	-17
NORRIE	T	967	874	11%	93
ONEIDA	T	4,001	3,858	4%	143
OWEN	C	936	895	5%	41
PELLA	T	877	885	-1%	-8
PITTSFIELD	T	2,433	2,165	12%	268
PLOVER	T	686	568	21%	118
PULASKI	V	3,058	2,200	39%	858
RED SPRINGS	T	981	614	60%	367
REID	T	1,191	1,057	13%	134
RESEBURG	T	740	687	8%	53
RIB FALLS	T	907	860	5%	47

Source: U.S. Census Bureau, August 2002.

# Appendix 5 - Continued

## 1990 and 2000 Population in Communities within 5 miles of State Highway 29

Name	Type	2000 population	1990 population	Percent change	Absolute change
RIB MOUNTAIN	T	7,556	5,605	35%	1,951
RICHMOND	T	1,719	1,587	8%	132
RIETBROCK	T	927	888	4%	39
RINGLE	T	1,408	1,279	10%	129
ROTHSCHILD	V	4,970	3,310	50%	1,660
SCHOFIELD	C	2,117	2,415	-12%	-298
SENECA	T	567	538	5%	29
SEYMOUR (Eau Claire Co.)	T	2,978	2,757	8%	221
SEYMOUR	T	1,216	1,217	0%	-1
SHAWANO	C	8,298	7,598	9%	700
SIGEL	T	825	736	12%	89
STANLEY	C	1,898	2,011	-6%	-113
STETTIN	T	2,191	2,191	0%	0
SUAMICO	T	8,686	5,214	67%	3,472
TEXAS	T	1,703	1,643	4%	60
THORP	C	1,536	1,657	-7%	-121
THORP	T	730	710	3%	20
TIGERTON	V	764	815	-6%	-51
TILDEN	T	1,185	1,079	10%	106
WASHINGTON	T	1,903	1,620	17%	283
WAUKECHON	T	928	876	6%	52
WAUSAU	C	38,426	37,060	4%	1,366
WAUSAU	T	2,214	2,133	4%	81
WESCOTT	T	3,653	3,085	18%	568
WESTON	V	12,079	0		12,079
WESTON	T	514	11,450	-96%	-10,936
WHEATON	T	2,366	2,279	4%	87
WIEN	T	712	705	1%	7
WITHEE	T	885	767	15%	118
WITHEE	V	508	503	1%	5
WITTENBERG	T	894	877	2%	17
WITTENBERG	V	1,177	1,145	3%	32
WORDEN	T	657	575	14%	82
TOTAL		476,568	428,335	11%	48,233

Source: U.S. Census Bureau, August 2002.



**Appendix 6**  
**1990 and 2000 Population in Communities within 5 miles of U.S. Highway 10**

Name	Type	2000 population	1990 population	Percent change	Absolute change
AMHERST	T	1,435	1,335	7%	100
AMHERST	V	964	792	22%	172
AMHERST JUNCTION	V	305	269	13%	36
APPLETON	C	70,087	65,695	7%	4,392
ARPIN	T	786	806	-2%	-20
AUBURNDALE	T	829	844	-2%	-15
AUBURNDALE	V	738	665	11%	73
BELMONT	T	623	540	15%	83
BLOOMFIELD	T	1,018	922	10%	96
BRIDGE CREEK	T	1,844	1,440	28%	404
BUCHANAN	T	5,827	2,484	135%	3,343
BUENA VISTA	T	1,187	1,170	1%	17
CALEDONIA	T	1,466	1,177	25%	289
CAMERON	T	510	522	-2%	-12
CAMERON	V	1,546	1,273	21%	273
CARSON	T	1,299	1,327	-2%	-28
CENTER	T	3,163	2,716	16%	447
CLAYTON	T	2,974	2,264	31%	710
CLEAR CREEK	T	712	692	3%	20
CLEVELAND	T	438	452	-3%	-14
COMBINED LOCKS	V	2,422	2,190	11%	232
DALE	T	2,288	1,818	26%	470
DAY	T	1,023	1,010	1%	13
DAYTON	T	2,734	1,992	37%	742
DEWEY	T	975	849	15%	126
DEWHURST	T	321	197	63%	124
EAU PLEINE	T	931	944	-1%	-13
ELLINGTON	T	2,535	2,099	21%	436
FAIRCHILD	T	351	312	13%	39
FAIRCHILD	V	564	504	12%	60
FARMINGTON	T	4,148	3,602	15%	546
FOSTER	T	95	85	12%	10
FREMONT (Clark Co.)	T	1,190	963	24%	227
FREMONT (Waupaca Co.)	V	666	632	5%	34
FREMONT (Waupaca Co.)	T	632	561	13%	71
GARDEN VALLEY	T	406	386	5%	20
GARFIELD	T	529	421	26%	108
GRAND CHUTE	T	18,392	14,490	27%	3,902
GRANT	T	920	890	3%	30
GRANTON	V	406	379	7%	27
GREEN VALLEY	T	514	396	30%	118
GREENVILLE	T	6,844	3,806	80%	3,038

Source: U.S. Census Bureau, August 2002.

**Appendix 6 - Continued**

**1990 and 2000 Population in Communities within 5 miles of U.S. Highway 10**

Name	Type	2000 population	1990 population	Percent change	Absolute change
HALE	T	988	971	2%	17
HARRISON	T	5,756	3,195	80%	2,561
HEWETT	T	314	314	0%	0
HEWITT	V	670	595	13%	75
HOLLAND	T	1,339	1,237	8%	102
HORTONIA	T	1,063	883	20%	180
HORTONVILLE	V	2,357	2,029	16%	328
HULL	T	5,493	5,563	-1%	-70
IOLA	T	818	637	28%	181
JUNCTION CITY	V	440	502	-12%	-62
LANARK	T	1,449	1,154	26%	295
LEVIS	T	504	492	2%	12
LINCOLN	T	1,554	1,429	9%	125
LIND	T	1,381	1,159	19%	222
LINWOOD	T	1,111	1,035	7%	76
LITTLE CHUTE	V	10,476	9,207	14%	1,269
LYNN	T	834	703	19%	131
MARSHFIELD	C	18,800	19,293	-3%	-493
MARSHFIELD	T	811	767	6%	44
MCMILLAN	T	1,790	1,697	5%	93
MENASHA	C	15,631	14,711	6%	920
MENASHA	T	15,858	13,975	13%	1,883
MENTOR	T	570	521	9%	49
MILLADORE	V	268	314	-15%	-46
MILLADORE	T	706	719	-2%	-13
MUKWA	T	2,773	2,304	20%	469
NEENAH	C	24,507	23,219	6%	1,288
NEENAH	T	2,657	2,691	-1%	-34
NEILLSVILLE	C	2,731	2,680	2%	51
NELSONVILLE	V	191	171	12%	20
NEW HOPE	T	736	694	6%	42
NORTHFIELD	T	586	572	2%	14
OSSEO	C	1,669	1,551	8%	118
OTTER CREEK	T	531	459	16%	72
PARK RIDGE	V	488	546	-11%	-58
PINE VALLEY	T	1,121	1,032	9%	89
PLOVER	T	3,101	2,791	11%	310
PLOVER	V	10,520	8,176	29%	2,344
RICHFIELD	T	1,523	1,344	13%	179
ROCK	T	856	764	12%	92
ROYALTON	T	1,523	1,456	5%	67
RUDOLPH	T	1,161	1,180	-2%	-19

Source: U.S. Census Bureau, August 2002.

**Appendix 6 - Continued**

**1990 and 2000 Population in Communities within 5 miles of U.S. Highway 10**

Name	Type	2000 population	1990 population	Percent change	Absolute change
SAXEVILLE	T	974	846	15%	128
SCANDINAVIA	T	1,075	890	21%	185
SCANDINAVIA	V	349	298	17%	51
SEIF	T	212	211	0%	1
SHARON	T	1,936	1,742	11%	194
SHERRY	T	809	787	3%	22
SHERWOOD	T	252	195	29%	57
SHERWOOD	V	1,550	837	85%	713
SPENCER	T	1,341	1,036	29%	305
ST. LAWRENCE	T	740	697	6%	43
STEVENS POINT	C	24,551	23,002	7%	1,549
STOCKTON	T	2,896	2,494	16%	402
SUMNER	T	806	711	13%	95
UNITY	T	556	473	18%	83
VANDENBROEK	T	1,351	1,291	5%	60
VINLAND	T	1,849	1,688	10%	161
WASHBURN	T	304	310	-2%	-6
WAUPACA	C	5,676	4,946	15%	730
WAUPACA	T	1,155	1,122	3%	33
WESTON	T	638	662	-4%	-24
WEYAUWEGA	C	1,806	1,665	8%	141
WEYAUWEGA	T	627	653	-4%	-26
WHITING	V	1,760	1,838	-4%	-78
WINCHESTER	T	1,676	1,433	17%	243
WOLF RIVER	T	1,223	1,037	18%	186
YORK	T	853	857	0%	-4
<b>TOTAL</b>		<b>351,257</b>	<b>312,364</b>	<b>12%</b>	<b>38,893</b>

Source: U.S. Census Bureau, August 2002.

**Appendix 7**  
**Tourism Expenditures**

**U.S. Highway 10 Annual Tourism Expenditures in Dollars**

County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Change
<b>CLARK</b>	17,016,162	17,966,794	19,221,024	20,629,881	20,854,361	22,846,534	25,240,721	29,689,178	29,371,648	31,249,289	73%
<b>OUTAGAMIE</b>	158,604,654	163,295,354	173,083,191	185,125,445	200,451,912	241,643,679	240,805,301	294,655,091	294,147,786	293,015,405	85%
<b>JACKSON</b>	22,423,666	22,321,073	24,124,224	27,181,569	32,248,075	44,634,010	53,709,988	84,418,740	83,033,312	79,149,298	270%
<b>TREMPEALEAU</b>	16,641,814	17,766,207	18,635,853	21,097,937	21,070,057	22,895,796	30,379,877	32,836,764	32,770,312	34,608,340	97%
<b>WINNEBAGO</b>	110,273,339	118,453,497	123,437,383	134,577,465	135,452,181	173,361,287	161,444,525	198,257,134	210,367,231	221,756,800	91%
<b>WOOD</b>	56,860,918	59,269,743	62,627,930	72,174,552	72,615,411	89,694,510	101,712,104	109,891,611	110,754,283	104,388,714	95%
<b>PORTAGE</b>	76,110,641	84,209,544	96,014,202	86,679,600	83,497,448	99,379,581	124,911,386	142,961,913	145,233,670	136,833,227	91%
<b>WAUPACA</b>	47,377,138	48,083,565	52,952,719	60,956,686	58,989,012	68,095,840	67,331,924	90,096,937	90,110,149	100,701,535	90%
<b>Total USH 10</b>	505,308,332	531,365,777	570,096,526	608,423,135	625,178,457	762,551,237	805,535,826	982,807,368	995,788,391	1,001,702,608	98%

Source: Wisconsin Department of Tourism, 2003.

**State Highway 29 Annual Tourism Expenditures in Dollars**

County	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	1993-2002 Change
<b>BROWN</b>	210,556,474	236,211,686	274,237,975	287,056,550	265,262,343	316,447,874	358,753,108	445,937,784	440,323,456	440,733,229	109%
<b>CHIPPEWA</b>	40,951,184	45,598,257	46,124,611	50,150,227	50,408,694	60,073,940	63,620,405	72,812,334	72,436,849	74,118,645	81%
<b>CLARK</b>	17,016,162	17,966,794	19,221,024	20,629,881	20,854,361	22,846,534	25,240,721	29,689,178	29,371,648	31,249,289	84%
<b>MARATHON</b>	90,861,419	89,815,229	92,886,832	109,758,612	102,115,106	142,566,287	167,143,617	184,938,520	196,923,972	202,216,034	123%
<b>OUTAGAMIE</b>	158,604,654	163,295,354	173,083,191	185,125,445	200,451,912	241,643,679	240,805,301	294,655,091	294,147,786	293,015,405	85%
<b>SHAWANO</b>	30,023,350	31,619,718	32,699,551	39,354,035	46,305,428	52,412,611	58,125,422	71,913,042	70,651,093	68,497,891	128%
<b>Total STH 29</b>	548,013,243	584,507,038	638,253,184	692,074,750	685,397,844	835,990,925	913,688,574	1,099,945,949	1,103,854,804	1,109,830,493	103%

Source: Wisconsin Department of Tourism, 2003.

## Appendix 8

### Per Capita Income

U.S. Highway 10						
County	Per Capita 1990	Per Capita 1995	Per Capita 2000	Growth 1990-1995	Growth 1995-2000	Growth 1990-2000
CLARK	13,273	15,803	19,809	19.1%	25.3%	49.2%
JACKSON	13,720	22,481	21,852	63.9%	-2.8%	59.3%
OUTAGAMIE	18,335	23,187	29,541	26.5%	27.4%	61.1%
PORTAGE	15,391	18,914	23,602	22.9%	24.8%	53.3%
TREMPEALEAU	14,712	17,226	22,518	17.1%	30.7%	53.1%
WAUPACA	15,776	19,854	25,568	25.8%	28.8%	62.1%
WINNEBAGO	18,507	22,907	27,819	23.8%	21.4%	50.3%
WOOD	18,187	22,658	28,669	24.6%	26.5%	57.6%

Source: Wisconsin Department of Workforce Development, 2002.

State Highway 29						
County	Per Capita 1990	Per Capita 1995	Per Capita 2000	Growth 1990-1995	Growth 1995-2000	Growth 1990-2000
BROWN	18,974	23,393	29,295	23.3%	25.2%	54.4%
CHIPPEWA	15,231	18,627	24,914	22.3%	33.8%	63.6%
CLARK	13,273	15,803	19,809	19.1%	25.3%	49.2%
MARATHON	16,778	20,942	26,860	24.8%	28.3%	60.1%
OUTAGAMIE	18,335	23,187	29,541	26.5%	27.4%	61.1%
SHAWANO	13,266	16,478	20,354	24.2%	23.5%	53.4%

Source: Wisconsin Department of Workforce Development, 2002.

**Appendix 9**  
**Commuting In/Out**  
**1990-2000**

Highway 10								
County of residence	Total 1990 working residents	Total 2000 working residents	commuting in 1990	commuting in 2000	change commuting in 1990-2000	commuting out 1990	commuting out 2000	change commuting out 1990-2000
CLARK	13,830	15,683	1,438	2,295	60%	3,736	5,240	40%
OUTAGAMIE	70,135	84,571	20,837	33,396	60%	17,432	25,147	44%
JACKSON	7,194	8,750	824	1,653	101%	1,809	2,218	23%
TREMPEALEAU	11,859	14,313	2,269	3,333	47%	2,704	4,053	50%
WINNEBAGO	69,409	81,109	20,266	27,423	35%	13,152	20,680	57%
WOOD	33,706	36,803	8,084	11,072	37%	3,697	5,476	48%
PORTAGE	29,496	35,088	4,243	5,597	32%	3,852	6,657	73%
WAUPACA	20,622	24,979	4,238	5,242	24%	4,872	8,183	68%
<b>Total USH 10</b>	<b>256,251</b>	<b>301,296</b>	<b>62,199</b>	<b>90,011</b>	<b>45%</b>	<b>51,254</b>	<b>77,654</b>	<b>52%</b>

Source: U.S. Census 1990, 2000, <http://161.188.204.80/maps/charlotte/jtw51.asp>

Highway 29								
County of residence	Total 1990 working residents	Total 2000 working residents	commuting in 1990	commuting in 2000	change commuting in 1990-2000	commuting out 1990	commuting out 2000	change commuting out 1990-2000
BROWN	98,033	118,872	14,491	26,933	86%	7,185	9,982	39%
CHIPPEWA	23,609	27,294	5,042	6,651	32%	6,000	9,294	55%
CLARK	13,830	15,683	1,438	2,295	60%	3,736	5,240	40%
MARATHON	56,860	65,680	6,374	10,375	63%	6,844	8,680	27%
OUTAGAMIE	70,135	84,571	20,837	33,396	60%	17,432	25,147	44%
SHAWANO	16,474	19,667	1,617	2,505	55%	5,387	8,024	49%
<b>Total STH 29</b>	<b>278,941</b>	<b>331,767</b>	<b>49,799</b>	<b>82,155</b>	<b>65%</b>	<b>46,584</b>	<b>66,367</b>	<b>42%</b>

Source: U.S. Census 1990, 2000, <http://161.188.204.80/maps/charlotte/jtw51.asp>

**Appendix 10**  
**Equalized Property Values: Highway 10**  
**1998-2003**

<b>Highway 10</b>				
<b>Name &amp; Type (C/V/T)</b>	<b>County</b>	<b>1998</b>	<b>2003</b>	<b>1998-2003 change</b>
Amherst T	PORTAGE	\$65,419,600	\$95,648,000	46%
Amherst V	PORTAGE	\$29,875,700	\$39,785,900	33%
Amherst Junction V	PORTAGE	\$12,349,000	\$19,429,200	57%
Auburndale T	WOOD	\$30,707,800	\$37,896,000	23%
Auburndale V	WOOD	\$16,890,900	\$25,207,200	49%
Caledonia T	WAUPACA	\$69,939,400	\$103,014,600	47%
Cameron T	WOOD	\$29,050,500	\$39,911,200	37%
Carson T	PORTAGE	\$69,876,200	\$95,561,500	37%
Clayton T	WINNEBAGO	\$165,763,600	\$255,352,800	54%
Cleveland T	JACKSON	\$16,785,500	\$26,803,700	60%
Dale T	OUTAGAMIE	\$99,257,900	\$160,669,300	62%
Eau Pleine T	PORTAGE	\$45,787,700	\$66,874,100	46%
Fairchild T	EAU CLAIRE	\$10,914,500	\$18,377,000	68%
Fairchild V	EAU CLAIRE	\$7,116,400	\$11,694,900	64%
Farmington T	WAUPACA	\$221,750,200	\$315,784,400	42%
Foster T	CLARK	\$9,099,300	\$13,813,200	52%
Fremont T	CLARK	\$27,963,000	\$41,896,600	50%
Fremont T	WAUPACA	\$31,279,700	\$48,702,300	56%
Fremont V	WAUPACA	\$35,000,300	\$49,740,100	42%
Garfield T	JACKSON	\$16,766,800	\$29,074,400	73%
Grant T	CLARK	\$23,887,500	\$30,856,400	29%
Grant V	CLARK	\$6,662,600	\$9,264,300	39%
Greenville T	OUTAGAMIE	\$363,856,100	\$605,969,500	67%
Hewett T	CLARK	\$12,670,000	\$17,865,400	41%
Hewitt V	WOOD	\$23,701,900	\$33,334,400	41%
Hull T	PORTAGE	\$228,212,300	\$284,608,400	25%
Junction City V	PORTAGE	\$11,189,400	\$12,164,700	9%
Lanark T	PORTAGE	\$59,424,300	\$89,058,800	50%
Lincoln T	WOOD	\$71,064,600	\$90,614,500	28%
Lind T	WAUPACA	\$53,728,900	\$83,175,900	55%
Linwood T	PORTAGE	\$47,815,500	\$69,737,400	46%
Lynn T	CLARK	\$22,048,500	\$30,715,300	39%
Marshfield C	WOOD	\$671,784,800	\$878,431,500	31%
Marshfield T	WOOD	\$31,610,200	\$44,937,200	42%
Menasha T	WINNEBAGO	\$906,069,100	\$1,183,585,600	31%
Mentor T	CLARK	\$15,403,600	\$24,353,600	58%
Milladore T	WOOD	\$22,526,100	\$30,572,100	36%
Milladore V	PORTAGE		\$0	

Source: Wisconsin Department of Revenue, 2004.

**Appendix 10 - Continued**  
**Equalized Property Values: Highway 10**  
**1998-2003**

<b>Highway 10</b>				
<b>Name &amp; Type (C/V/T)</b>	<b>County</b>	<b>1998</b>	<b>2003</b>	<b>1998-2003 change</b>
Neillsville C	CLARK	\$67,514,900	\$91,816,300	36%
Nelsonville V	PORTAGE	\$6,390,700	\$8,352,600	31%
Osseo C	TREMPEALEAU	\$60,966,300	\$85,473,200	40%
Park Ridge V	PORTAGE	\$29,911,400	\$36,247,000	21%
Pine Valley T	CLARK	\$32,968,100	\$55,165,000	67%
Richfield T	WOOD	\$42,109,700	\$64,544,700	53%
Rock T	WOOD	\$35,046,500	\$49,396,600	41%
Royalton T	WAUPACA	\$61,671,800	\$93,767,400	52%
Seif T	CLARK	\$9,713,400	\$14,552,000	50%
Sherry T	WOOD	\$30,737,700	\$39,162,000	27%
Stevens Point C	PORTAGE	\$943,099,500	\$1,203,617,900	28%
Stockton T	PORTAGE	\$138,696,800	\$169,966,100	23%
Sumner T	TREMPEALEAU	\$25,371,900	\$36,587,700	44%
Waupaca C	WAUPACA	\$222,433,700	\$323,345,000	45%
Waupaca T	WAUPACA	\$46,546,500	\$70,324,200	51%
Weyauwega C	WAUPACA	\$62,415,500	\$80,828,400	30%
Weyauwega T	WAUPACA	\$27,408,200	\$38,631,600	41%
<b>SUBTOTAL USH 10</b>		<b>\$5,432,228,100</b>	<b>\$7,483,851,300</b>	<b>38%</b>
<b>STATEWIDE</b>		<b>\$248,994,915,200</b>	<b>\$360,710,211,300</b>	<b>45%</b>

Source: Wisconsin Department of Revenue, 2004.



**Appendix 11**  
**Equalized Property Values: Highway 29**  
**1998-2003**

<b>Highway 29</b>				
<b>Name &amp; Type (C/V/T)</b>	<b>County</b>	<b>1998</b>	<b>2003</b>	<b>1998-2003 change</b>
Abbotsford C	CLARK	\$43,248,900	\$54,642,900	26%
Abbotsford C	MARATHON	\$22,682,700	\$33,319,400	47%
Angelica T	SHAWANO	\$55,117,500	\$87,934,000	60%
Belle Plaine T	SHAWANO	\$98,318,400	\$146,907,500	49%
Bonduel V	SHAWANO	\$47,088,900	\$62,729,100	33%
Boyd V	CHIPPEWA	\$13,370,900	\$19,380,400	45%
Cadott V	CHIPPEWA	\$37,551,200	\$51,085,600	36%
Cassel T	MARATHON	\$30,211,300	\$46,412,100	54%
Chippewa Falls C	CHIPPEWA	\$480,714,300	\$640,173,400	33%
Colby C	CLARK	\$29,427,100	\$40,815,900	39%
Colby C	MARATHON	\$14,050,600	\$20,027,500	43%
Colby T	CLARK	\$23,133,000	\$30,148,000	30%
Curtiss V	CLARK	\$3,968,900	\$7,545,100	90%
Delmar T	CHIPPEWA	\$27,556,800	\$38,875,500	41%
Edgar V	MARATHON	\$42,026,600	\$56,521,500	34%
Edson T	CHIPPEWA	\$26,009,700	\$41,289,700	59%
Elderon T	MARATHON	\$24,976,200	\$42,848,000	72%
Frankfort T	MARATHON	\$20,472,700	\$32,481,400	59%
Goetz T	CHIPPEWA	\$19,353,600	\$32,786,700	69%
Green Grove T	CLARK	\$19,707,600	\$26,711,500	36%
Hallie T	CHIPPEWA	\$193,512,600	\$296,897,500	53%
Hartland T	SHAWANO	\$29,109,800	\$42,056,200	44%
Hatley V	MARATHON	\$14,821,600	\$23,044,700	55%
Herman T	SHAWANO	\$24,373,100	\$35,460,400	45%
Hixon T	CLARK	\$18,509,000	\$25,241,400	36%
Hoard T	CLARK	\$17,508,600	\$24,735,000	41%
Hobart T	BROWN	\$273,259,400	\$486,109,000	78%
Holton T	MARATHON	\$27,413,200	\$36,668,600	34%
Howard V	BROWN	\$667,447,100	\$1,009,916,900	51%
Hull T	MARATHON	\$24,820,500	\$34,928,300	41%
Johnson T	MARATHON	\$26,460,100	\$37,898,900	43%
Lafayette T	CHIPPEWA	\$218,702,300	\$344,549,400	58%
Longwood T	CLARK	\$21,966,300	\$28,580,700	30%
Maple Grove T	SHAWANO	\$39,095,000	\$46,587,700	19%
Marathon City V	MARATHON	\$75,316,400	\$86,971,000	15%
Marathon T	MARATHON	\$46,937,800	\$69,445,300	48%
Mayville T	CLARK	\$26,547,900	\$34,350,400	29%
Morris T	SHAWANO	\$19,925,900	\$32,109,500	61%

Source: Wisconsin Department of Revenue, 2004.

**Appendix 11 - Continued**  
**Equalized Property Values: Highway 29**  
**1998-2003**

<b>Highway 29</b>				
<b>Name &amp; Type (C/V/T)</b>	<b>County</b>	<b>1998</b>	<b>2003</b>	<b>1998-2003 change</b>
Norrie T	MARATHON	\$32,170,700	\$56,895,600	77%
Oneida T	OUTAGAMIE	\$112,517,300	\$151,683,600	35%
Owen C	CLARK	\$23,745,700	\$30,429,900	28%
Pittsfield T	BROWN	\$118,765,800	\$157,403,600	33%
Reseburg T	CLARK	\$20,434,200	\$25,612,100	25%
Rib Falls T	MARATHON	\$32,178,800	\$48,430,400	51%
Rib Mountain T	MARATHON	\$414,566,200	\$553,245,300	33%
Richmond T	SHAWANO	\$76,384,600	\$113,234,500	48%
Rietbrock T	MARATHON	\$25,428,800	\$36,356,900	43%
Ringle T	MARATHON	\$54,961,500	\$89,890,300	64%
Rothschild V	MARATHON	\$260,975,600	\$342,262,000	31%
Schofield C	MARATHON	\$139,698,300	\$181,750,700	30%
Seneca T	SHAWANO	\$23,902,400	\$37,360,800	56%
Seymour T	OUTAGAMIE	\$49,401,300	\$73,657,700	49%
Shawano C	SHAWANO	\$314,393,700	\$413,810,200	32%
Sigel T	CHIPPEWA	\$21,878,000	\$41,916,200	92%
Stanley C	CHIPPEWA	\$37,941,700	\$73,242,400	93%
Stettin T	MARATHON	\$135,100,100	\$186,829,000	38%
Thorp C	CLARK	\$40,001,900	\$60,766,500	52%
Thorp T	CLARK	\$20,484,900	\$29,017,100	42%
Washington T	SHAWANO	\$111,204,000	\$160,319,100	44%
Waukechon T	SHAWANO	\$34,081,700	\$55,472,100	63%
Wausau C	MARATHON	\$1,571,663,200	\$2,003,188,900	27%
Wescott T	SHAWANO	\$217,017,400	\$309,261,100	43%
Weston T	MARATHON	\$20,772,500	\$34,636,000	67%
Weston V	MARATHON	\$425,575,100	\$597,633,300	40%
Wien T	MARATHON	\$22,863,300	\$32,634,000	43%
Withee T	CLARK	\$21,368,700	\$30,758,400	44%
Withee V	CLARK	\$9,811,000	\$14,663,400	49%
Wittenberg T	SHAWANO	\$29,120,700	\$50,523,600	73%
Wittenberg V	SHAWANO	\$24,420,500	\$33,618,300	38%
Worden T	CLARK	\$19,148,000	\$25,818,100	35%
<b>SUBTOTAL HIGHWAY 29</b>		<b>\$7,306,691,100</b>	<b>\$10,260,507,200</b>	<b>40%</b>
<b>STATEWIDE</b>		<b>\$248,994,915,200</b>	<b>\$360,710,211,300</b>	<b>45%</b>

**Source: Wisconsin Department of Revenue, 2004.**

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[http://www.uwex.edu/ces/cced/CommunityIndicators\\_workerflow.htm](http://www.uwex.edu/ces/cced/CommunityIndicators_workerflow.htm)

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<sup>1</sup> *Highway 29/45/10 Corridor Study*, Cambridge Systematics, Inc., 1989, conducted by Glen Weisbrod, currently a principal with the Economic Development Research Group.

<sup>2</sup> Interviews were not conducted in Highway 10 communities.

<sup>3</sup> The decision to use Highway 10 as a comparison corridor for Highway 29 was based on recommendations by three members of the Technical Oversight Committee. These individuals were also Wisconsin Transportation Department employees familiar with the corridors, located in the committee members' respective transportation districts.

<sup>4</sup> Construction started in 1988 and ended in 2000, with the exception of Chippewa Falls' bypass, scheduled for construction in 2005.

<sup>5</sup> [www.edrgroup.com/hwy-impact.html](http://www.edrgroup.com/hwy-impact.html)

<sup>6</sup> Towns surrounding cities or villages were not interviewed, as the nearby municipalities tended to include the surrounding unincorporated area development in their interviews.

<sup>7</sup> ReferenceUSA, a private vendor, provides WisDOT with an updated database of Wisconsin business establishments.

<sup>8</sup> American Business Directory ([www.ReferenceUSA.com](http://www.ReferenceUSA.com)) and Pro CD Select Street Atlas 1995, a comprehensive CD-ROM business telephone directory.

<sup>9</sup> Business counts for Howard, Weston, Shawano, and the towns of Rib Mountain, Washington, Angelica, Maple Grove, and Pittsfield were not available. In most cases, business data for these communities was included under the listings of a larger neighboring municipality. For example, the Village of Howard's businesses were included under the City of Green Bay's listings.

<sup>10</sup> *Indiana's Cross-County Commuting Patterns: The Lafayette Labor Market Area*, <http://www.ces.purdue.edu/extmedia/EC/EC-695.html>

<sup>11</sup> *New Richmond Business Market Analysis*, 2003, [http://www.newrichmondchamber.com/tm\\_section5.PDF](http://www.newrichmondchamber.com/tm_section5.PDF)

<sup>12</sup> Ibid.

<sup>13</sup> Wisconsin's most self-sufficient county in 2000 was Dane, with 95% of its workforce employed locally, followed closely by Brown County, which is located along Highway 29.

<sup>14</sup> [http://www.uwex.edu/ces/cced/CommunityIndicators\\_workerflow.htm](http://www.uwex.edu/ces/cced/CommunityIndicators_workerflow.htm)

<sup>15</sup> Ibid.

<sup>16</sup> University of Wisconsin Extension-Center for Community Economic Development

<sup>17</sup> [www.dor.state.wi.us/equ/2003/03coapprt.html](http://www.dor.state.wi.us/equ/2003/03coapprt.html), [www.dor.state.wi.us/equ/02coapprt.html](http://www.dor.state.wi.us/equ/02coapprt.html), [www.dor.state.wi.us/equ/01coapprt.html](http://www.dor.state.wi.us/equ/01coapprt.html), [www.dor.state.wi.us/equ/report2.html](http://www.dor.state.wi.us/equ/report2.html)

<sup>18</sup> *Highway 29 Community Partnership, Community Resource Team Report*, Wisconsin Rural Partners, Inc., 2002, p. 9.

<sup>19</sup> [www.dor.state.wi.us/equ/2003/03coapprt.html](http://www.dor.state.wi.us/equ/2003/03coapprt.html), [www.dor.state.wi.us/equ/02coapprt.html](http://www.dor.state.wi.us/equ/02coapprt.html), [www.dor.state.wi.us/equ/01coapprt.html](http://www.dor.state.wi.us/equ/01coapprt.html), [www.dor.state.wi.us/equ/report2.html](http://www.dor.state.wi.us/equ/report2.html)

<sup>20</sup> <http://www.ci.wausau.wi.us/>



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